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## Nuwejaarsgroete van die President

*Dr. R. Schaffer, President van die Mediese Vereniging van Suid-Afrika, stuur die volgende boodskap van Nuwejaarsgroete aan lede van die Vereniging:*

Dit is vir my 'n aangename voorreg om my beste wense aan almal te stuur wat lede is van die Mediese Vereniging van Suid-Afrika. Ek hoop dat die jaar 1959 vir ons almal 'n gelukkige en voorspoedige jaar sal wees.

Ek wil graag my dank uitspreek teenoor almal wat hul tyd en kragte aan ons belange gewy het. Aan die lede van die Federale Raad en aan die verskeie Takrade kom ons hartlike dank toe. Ook wil ek graag my besondere dank uitspreek aan die sekretaris van ons Takke en Afdelings. Sonder hulle pogings en entoesiasme sou daar geen Mediese Vereniging wees nie.

Die belangrikste oogmerk by die stigting van die Vereniging was om die mediese en verwante wetenskappe te bevorder, en om die belange van die professie te behartig en sy eer te handhaaf. Dit kan slegs bereik word deur gereelde vergaderings van lede, nie net in die stedelike gebied, maar ook op die platteland. Ons het goed gegaan in 1958, maar dit moet nog beter gaan in 1959.

Ten einde die beste moontlike dienste aan ons lede te kan lewer, moet ons die beste

## New Year Greetings from the President

*Dr. R. Schaffer, President of the Medical Association of South Africa, sends the following message of greeting for the New Year to members of the Association:*

It is my pleasure and my privilege to send good wishes to all who are members of the Medical Association of South Africa. I hope the year 1959 will be a happy and a prosperous one for us all.

I would like to thank all those who have given their time and their effort in our interests. The members of Federal Council and the members of the various Branch Councils deserve our thanks. I would in particular like to thank the secretaries of our Branches and Divisions. Without their efforts and enthusiasm there would be no Medical Association.

The most important objects for which the Association was established are to promote the medical and allied sciences and to maintain the honour and interest of the profession. This can only be done by having frequent meetings of members, not only in the larger centres, but also in the rural areas. We have done well in 1958 but must do better in 1959.

In order to render the best possible service to our members we need the best possible

moontlike organisasie hê. Hiervoor moet daar betaal word en ons moet gereed wees om al ons verpligtinge in hierdie verband na te kom.

Ons wil graag ons voltydse mediese sekretarisse en ons administratiewe personeel bedank—hulle het ons goed gedien.

Ons is bly om 'n nuwe redakteur, dr. A. P. Blignault, te kan verwelkom en ons is oortuig daarvan dat hy nie slegs die standaard van ons *Tydskrif* sal handhaaf nie, maar dat hy aan ons 'n verbeterde *Tydskrif* sal gee wat meer doeltreffend in die behoeftes van albei taalgroepe sal voorsien. Teenoor ons aftredende redakteur, dr. T. Shadick Higgins, wil ons ons opregte dank en waardering uitspreek. Ons is almal bly daaroor dat hy nog op 'n aktiewe manier in die *Tydskrif* sal bly belangstel.

In die geloof dat alles met ons in die toekoms wel sal wees, wil ek u almal 'n gelukkige en voorspoedige Nuwe Jaar toewens.

## BOODSKAP VAN DR. J. H. STRUTHERS

*Voorsitter van die Federale Raad van die Mediese Vereniging van Suid-Afrika*

Ons staan weer op die drumpel van 'n nuwe jaar en ek wil graag hierdie geleentheid gebruik om aan alle lede van die Federale Raad, aan ons amptenare en aan alle lede van die Mediese Vereniging, groete te stuur sowel as my beste vir die jaar wat voorlê.

Ek wil veral graag verwys na ons Redakteur, dr. T. Shadick Higgins, wat sy betrekking aan die einde van die jaar neerlê. Hy het uitstekende diens aan ons gelewer gedurende die afgelope vyf jaar en die *Tydskrif* neem 'n belangrike plek in ons gedagtes en gevoelens in. Dr. Higgins is een van ons oudste lede en hy het oor 'n lang tydperk uitstaande dienste aan ons Vereniging bewys. Hy verlaat die redaksionele stoel en ons beste wense vir goeie gesondheid en geluk vergesel hom.

In die geval van 'n Vereniging soos dié van ons, neem ons gewoonlik baie dinge as vanselfsprekend aan solank as wat alles goed verloop. Dit is slegs wanneer daar oor belangrike sake van beleid of beginsels besluit moet word, dat ons verskille na vore kom. Die Mediese Vereniging is op 'n demokratiese grondslag ingestel en alle lede kan hulle stem laat hoor en hulle menings laat oorweeg deur middel van ons Afdelings, Takke en Groepe. Ek is seker daarvan dat ons oor baie probleme gedurende die volgende jaar sal moet besluit en ons sal probeer om toe te sien dat die Vereniging gedurig wakker bly. Ek hoop dat die lede op hulle beurt, hulle trou en ondersteuning aan die Vereniging sal gee, want dit is die enigste manier om die opbou van 'n sterk en doeltreffende organisasie te verseker.

## POSTGRADUATE MEDICAL EDUCATION AS A MORAL PRECEPT\*

Postgraduate or continuation education is a moral as well as an ethical commitment of the medical profession. Enrollment in a medical school means more than simply four years of study. It involves an obligation to a lifetime of active education in view of the prodigious advances in medicine that occur continually. Members of the profession cannot ethically or morally avoid making all possible efforts to learn of the scientific advances. Of what help to a sick person is any amount of research that provides means for his more adequate diagnosis or treatment unless his physician knows of this new knowledge? "Each physician must continue to learn in order that others may live." Also,

organization. This must be paid for and we must be prepared to pay whatever may be necessary.

We wish to thank our full-time medical secretaries and our administrative staff—they have served us well.

We are pleased to welcome a new editor, Dr. A. P. Blignault, and are confident that he will not only maintain the standard of our *Journal*, but will give us an improved *Journal* which will more adequately serve the needs of both language groups. Our retiring editor, Dr. T. Shadick Higgins, deserves our sincere thanks and appreciation. We are all pleased that he will still be actively interested in our *Journal*.

It is with confidence in our future that I wish you all a happy and prosperous New Year.

## MESSAGE FROM DR. J. H. STRUTHERS

*Chairman of Federal Council of the Medical Association of South Africa*

Once again we stand on the threshold of a new year and I would like to take this opportunity of sending to all Federal Councillors, to our officials and to all members of our Medical Association greetings and my very best wishes for the coming year.

I would, in particular, like to refer to our Editor, Dr. T. Shadick Higgins, who is retiring from this office at the end of the year. He has given us most excellent service during the past five years and the *Journal* stands very high today in our thoughts and affections. Dr. Higgins is one of our oldest members and he has a wonderful record of service to our Association. As he says goodbye to the editorial chair, we wish him good health and happiness.

In an Association like ours, whilst things are running smoothly, we take everything very much for granted. It is only when important policies and principles have to be decided upon that our divergences become manifest. The Medical Association is democratically constituted and through our Divisions, Branches and Groups the views of all members can be heard and considered. I have no doubt that many problems will present themselves for solution during the coming year, and we will try to see that the Association is constantly vigilant. I hope that in turn the members will give their loyalty and support to the Association, for this is the only way to ensure an organization which is strong and effective.

each physician must continue to learn in order to live in peace with himself.

In past eras when medical advances occurred at a funeral pace easily assimilable by the profession without special effort, informal approaches to continuing education were adequate to the need. In the current setting, physicians require all the assistance they can secure in remaining abreast in scientific development. While the medical literature, scientific meetings and day-to-day activities are important in education, as well as for other purposes, regular participation in postgraduate courses is recognized increasingly as an effective means of continuing medical education.

\* Abstract. Editorial (1958): J. Amer. Med. Assoc., 167, 1938.

## SUG EN GAAP

Die simptome, sug en gaap, kom by normale mense voor as 'n normale reaksie en is veral opvallend na 'n dinee. Toesprake en sprekers na so 'n dinee kan die voorkoms van hierdie simptome dikwels aanmerklik verhoog! Dit is egter ook simptome wat in diverse toestande van belang mag wees en almal van ons is bekend met pasiënte wat aanhoudend gaap as gevolg van 'n ernstige anemie of letsels van die midbrein. Enigeen wat spirogramme bestudeer, sal ook in 'n aanmerklike persentasie van hulle bewyse van sugte vind. Ten spyte van die klaarblyklike belangrikheid van hierdie simptome is min daaroor in die literatuur te vind. Die meeste standaard-handboeke oor die fisiologie definieer nie die toestand van gaap nie en in 3 erkende standaardwerke oor die neurologie verskyn die term 'gaap' (yawning) nie in die inhoudsopgawe nie. In hierdie opsig is sug meer gelukkig aangesien Caughey<sup>1</sup> dit definieer as 'n onwillekeurige inspiratoriese piek tweemaal die diepte van normale asemhaling'. Leiner en Abramowitz<sup>2</sup> vind die diepte van 'n sug ongeveer 1·5 maal die diepte van die wissellug (tidal volume).

**Die Sug.** Dit word algemeen in die literatuur aanvaar dat die sug 'n teken van neurosirkulêre astenie is, en dat dit algemeen voorkom by neurotiese persone. Nietemin, soos reeds genoem, is dit 'n normale reaksie by normale persone onderhewig aan verskeie emosionele spanningstoestande soos angs en verdriet, terwyl die 'sug van verligting' ook in die volksmond teregtom. In 'n onlangse studie vind Leiner en Abramowitz<sup>2</sup> dat die sug in diepte korreleer met die diepte van die vitale kapasiteit. Dit is natuurlik kleiner as die vitale kapasiteit, maar verrassend genoeg is daar gevind dat in 6 pasiënte met neurologiese toestande die onwillekeurige sug aansienlik groter was as die willekeurige vitale kapasiteit. Die pasiënte het diverse patologie gehad. Die geval met dissemineerde sklerose was veral interessant—die volume van sy sug was 1·9 liter terwyl sy vitale kapasiteit slegs 0·7 liter was.

Sug is 'n refleks en verdwyn tydens slaap—om hierdie rede word 'n kortikale oorsprong gepostuleer. Leiner en Abramowitz<sup>2</sup> bespreek ook die maonlike bane, soos uit dier-eksperimente blyk, en besluit ten opsigte van hulle bevindings in die 6 neurologiese gevalle dat die refleks nie versteur is in hierdie gevalle nie, terwyl die bane waardeur 'n willekeurige diep asemhaling geskied tog beskuldig is.

**Die Gaap.** 'n Definisie is, soos reeds genoem, slegs in woordeboeke te vinde. Die literatuur hieroor is beperk en 'n onlangse artikel van Barbizet<sup>3</sup> is die enigste wat ons in die Engelse literatuur van redelike onlangse datum kon teenkom. Volgens hierdie skrywer is die gaap 'n onwillekeurige paroksismale asemhalingsbeweging waarin 3 fases onderskei kan word t.w. die aktiewe of inspiratoriese fase, die hoogtepunt en derdens die passiewe, ekspiratoriese fase. Die gemiddelde gaap duur 4·7 sekondes. Barbizet het ook 'n radiologiese studie van die proses gemaak en gevind dat die

geluid tydens inspirasie deur die verhemelte en isthmus van die keel geproduseer word, terwyl die glottis wyd oop is. Interessant is ook die beskrywing van gesigsveranderings tydens gaap—die saamtrekking van die dilatore van die lip, vernouing of sluiting van die oogspleet, dilatasie van die nares, plooiing van die neus, ens.

Ons weet dat gaap aansteeklik is, en die fisiologiese toestande waaronder dit voorkom is ewe bekend bv. vaakheid, slaperigheid, verveling, honger en oorversadiging soos na 'n Sondagmaal. Gaap kom ook dikwels voor in swangerskap en liggaamlike uitputting.

Die patologiese toestande waaronder gaap voorkom sluit veral in letsels van die breinstam (bloeding, tumore en versagting); terwyl posterior fossa tumore, deur kompressie van die breinstam, die simptome voortroep. In hemisferiese tumore dra gaap 'n swak prognose vanweë breinstamkompressie. In alkoholiese enkefalopatie en enkefalitis, by korealyers en in sekere vorms van epilepsie word dit ook gevind. Gaap is dikwels 'n manifestasie van histerie en dit kom ook dikwels voor in anemie, bloeding, skok en tydens koors.

Barbizet<sup>3</sup> bespreek dan ook verder die fisiologiese meganismes van gaap. Wat by die lees van hierdie artikel veral opvallend is, is die groot veld wat braak lê vir die navorser op eksperimentele en kliniese gebied. Waarskynlik volg die gaap op 'n paroksismale neuronale ontlading wat sekere motoriese kerne wat in die bulbus en servikale rugmurg lê, raak. 'n Ander teorie sluit 'n versteuring van die CO<sub>2</sub>/O<sub>2</sub> verhouding in en probeer veral om die voorkoms in anemie en sirkulasieafwykings te verklaar. Humorele faktore bv. alkalose na 'n maaltyd, of polipeptiede en vette vanaf die spysverteringskanaal, word ook genoem. Die effek van morfiene en hipnotiese middels, in teenstelling met amfetamien en kaffeïen, is bekend.

Ten slotte wys die skrywer op die psigo-sosiale aspekte van gaap. Dit toon naamlik gebrek aan belangstelling en dit hang saam met die belangstelling van die individu, noodwendig gekoppel aan sy persoonlikheid. Belangstelling word deur verskillende faktore gekondisioneer, soos skoolopvoeding, familie-agtergrond, professionele en sosiale status. Die onderdrukte gaap mag geveinsde belangstelling aandui, terwyl die luide langgerekte gaap mag dui op 'n aggressiewe benadering tot 'n oninteressante situasie.

As geneesheer hoor ons heeldag mense sug en sien ons mense gaap. Laat ons 'n wyle nadink oor die meganisme en die betekenis hiervan. Mag sprekers, lektore en ander belanghebbendes die sug en die gaap eerbiedig en na waarde skat. Ons mag dit miskien selfs as 'n wapen gebruik!

1. Caughey, J. L., Jr. (1943): Amer. Rev. Tuberc., 48, 382.

2. Leiner, G. C. en Abramowitz, S. (1958): Dis. Chest, 34, 1.

3. Barbizet, J. (1958): J. Neurol. Neurosurg. Psychiat., 21, 177.

## LIBRARY SERVICES FOR MEMBERS OF THE MEDICAL ASSOCIATION

'To study the phenomenon of disease without books is to sail an uncharted sea.' (Osler.)

One of the many privileges connected with membership of the Medical Association is participation in a medical library service to which every member of the Association is entitled. As it appears that many members are not aware of this service, it may be advantageous to discuss its salient points in these columns.

In April 1936, when there were, as yet, only two medical schools in the country, an agreement was reached between the Association and the medical libraries of the two universities. In terms of this agreement it was decided that the Cape Western Branch of the Medical Association would hand over its private library to the medical library of the University of Cape Town; that the Association would make a regular annual contribution to the libraries and that the medical libraries would undertake to provide a library service for the use of members of the Association in every part of the country.

The proposed zoning of this service was approximately as follows: the medical library of the University of Cape Town would serve the Cape Province, the Orange Free State and South West Africa; and the medical library of the University of the Witwatersrand would serve Natal and the Transvaal. In view of the fact that 3 new universities have since been established it would be advisable to reconsider this agreement especially with reference to the zoning of services.

The services rendered to members of the Medical Association

by these libraries may be described under 2 headings:

1. Services to members in city areas. For the convenience of members who want books or periodicals, or who wish to do research work, the libraries remain open throughout the week. Members of the Association who want to make use of the libraries need only show their membership cards and sign the register. The library with its staff and facilities is then at their disposal and no fee is charged. Members may work in the library itself or books and periodicals may be taken away for the purpose of continuing their work at home.

2. Services for country members. Country members of the Medical Association, no matter where they live, are entitled to get books from the medical libraries. They may keep the books for a week—excluding the time taken in forwarding the books. The forward postage is paid by the library.

The services rendered by the medical libraries are not limited to the library, but include much more. Should a member require books or periodicals which are not in the library, he should get in touch with the librarian. The required book or document may then be procured through an inter-library loan service. Failing this, the library will try to get a microfilm or photostatic copy of the document from overseas. At a very small cost the library will provide copies of any article, illustration or diagram.

In this way the medical libraries enable doctors to continue their studies and research work irrespective of where they live and work.

## PRESENT TRENDS IN THE MANAGEMENT OF BREAST CANCER

REUBEN SILBERMAN, M.B. (RAND), F.R.C.S.E., F.R.C.S. *Memorial Center for Cancer and Allied Diseases, New York*

In recent years many new methods of treatment in breast cancer have been proposed. Some have been shown to be of value, others are as yet unproved and some have been discredited. How then is the surgeon to proceed in the management of these cases?

I have been fortunate enough to spend some time at Memorial Center in the Breast Service, where most of the newer methods of treatment are being employed and evaluated. The Breast Service deals with a large number of cases. In 1948 alone 1,860 new breast admissions were dealt with and 631 radical mastectomies were performed.<sup>1</sup> Thus even in a short period of time there has been ample opportunity of seeing how cases of breast cancer are managed in this institution and which of the newer concepts have found practical application.

Treatment will be discussed under two headings: curative treatment, where the aim of treatment is cure of the patient, and palliative treatment when it is evident that the course of the disease can only be ameliorated.

## CURATIVE TREATMENT

## Selection of Cases

Selection of cases for curative treatment is not always easy. Generally speaking, cases which can be classified as stages I and II in the Manchester classification are suitable

for this type of treatment and cases which are classified as stages III and IV are unsuitable and should be treated by palliative measures.

Haagensen<sup>2</sup> has enumerated the criteria by which he considers cases to be unsuitable for curative treatment; these criteria, while similar to stages III and IV, are more comprehensive and form a better guide to treatment. His criteria of inoperability are as follows:

1. Extensive oedema of the skin over the breast is present.
2. Satellite nodules are present in the skin over the breast.
3. The carcinoma is of the inflammatory type.
4. Parasternal tumour nodules are present.
5. Proved supraclavicular metastases are present.
6. There is oedema of the arm.
7. Distant metastases are demonstrated.
8. Any 2 or more of the following grave signs of locally advanced carcinoma are present:
  - (a) Ulceration of the skin.
  - (b) Oedema of the skin of limited extent (less than 1/3rd of the skin over the breast involved).
  - (c) Solid fixation of the tumour to the chest wall.
  - (d) Axillary lymph nodes measuring 2.5 cm. or more in transverse diameter.
  - (e) Fixation of the axillary lymph nodes to the skin or the deep structures of the axilla.

However, many surgeons, including those at Memorial Center, feel that these criteria are somewhat rigid and exclude

a certain number of patients from possible cure, however small this number may in fact be. Their criteria for selection are more liberal and patients are given the opportunity of possible cure in instances where it might be denied by others. The final decision in selecting cases must depend on the individual case and on the dictates of the individual surgeon's conscience and not on rigid rules which provide guidance only.

#### *Radical Mastectomy versus Simple Mastectomy and X-ray Treatment*

McWhirter<sup>3</sup> propounded good theoretical arguments in favour of his mode of treatment, which consists of simple mastectomy followed by X-ray treatment as opposed to the more usually employed conventional radical mastectomy.

He pointed out, quoting figures from Andreassen and Dahl-Iverson,<sup>4</sup> that the supraclavicular lymph nodes were involved in 33% of cases in which positive axillary nodes were found at radical mastectomy. Furthermore he stated that the internal mammary lymph nodes were involved in 48% of cases in which the axillary nodes were positive at radical mastectomy, quoting Handley.<sup>5</sup> It is thus apparent that in many instances in which radical mastectomy is employed the operation is predestined to fail since spread of disease will have already advanced beyond the confines of conventional radical mastectomy.

Since this is the case McWhirter<sup>3</sup> favoured abandoning radical mastectomy entirely and substituting his form of treatment in its place, arguing that simple mastectomy followed by radiotherapy 'should be just as effective as radical mastectomy where there is no involvement of the axillary lymph nodes'. Furthermore, he argued, should the axillary nodes be involved by disease, there is good reason to suppose that a large percentage of radical mastectomies must fail because the disease will have passed beyond the bounds of excision in the conventional radical procedure.

That these are extremely sound arguments is borne out by McWhirter's 42% 5-year survival rate for all cases (1,882) of primary breast cancer recorded in the period 1941-47. A smaller but comparable series of 5-year survivals for primary breast cancer at Memorial Center treated mainly by radical mastectomy was 49%.<sup>6</sup> But such comparisons are necessarily fraught with danger. Until a controlled investigation using random selection has been carried out, the true value of McWhirter's treatment will not be known.

Radical mastectomy, with certain modifications which will be discussed later, still remains the sheet-anchor of treatment today.

#### *Extended Radical Surgery*

In an attempt to overcome the inherent deficiencies of radical mastectomy some surgeons have pursued a policy of extended rather than more limited surgery. Wangenstein, *et al.*<sup>7</sup> have reported on a procedure, in 1 or 2 stages, which accomplishes removal of the breast and the axillary, supraclavicular and mediastinal lymph nodes. This 'super-radical' procedure has been carried out on 64 patients with an operative mortality of 12½% and 5-year survival rate, free of disease, of only 10%. The authors conclude from their findings that the procedure 'fails to supply evidence which would suggest a significant improvement over the results obtained with the conventional radical mastectomy'.

Urban,<sup>8</sup> at Memorial Center, has extended the conventional

radical operation to include the internal mammary nodes in an *en bloc* resection with the breast and axillary contents. Whilst Wangenstein's procedure failed because of high mortality and a poor survival rate, Urban<sup>8</sup> has had no operative death and only 2 post-operative deaths (a cerebrovascular accident and a perforated peptic ulcer) in a series of 285 patients ranging in age from 30 to 70 years. Thus far 55 patients have been operated on 5 years ago or more; the 5-year survival rate being as high as 65.4%. In this series of 55 patients, 40% had metastases of the internal mammary nodes, and 56.4% of the axillary nodes.

Since the lesions which are situated beneath the areola or in the medial quadrants of the breast are the ones which most frequently metastasize to the internal mammary chain of nodes, Urban's procedure has its greatest value in these lesions. The procedure in these medially situated and subareolar lesions has produced a 10% improvement in 5-year survival rates compared with conventional radical mastectomy.<sup>9</sup>

Briefly, the operation consists of a standard radical mastectomy skin incision with elevation of the skin flaps followed by a resection of the second to fifth costal cartilages and the ipsilateral half of the sternum with underlying internal mammary vessels and nodes. This is followed by the usual radical mastectomy except that the mastectomy is carried out in continuity with the chest-wall resection. The defect in the chest wall is closed by means of a homograft or autograft of fascia lata. The skin is closed primarily, which usually necessitates undermining the opposite breast; the axilla and chest are drained. Most patients are discharged 7 or 8 days after the operation, the morbidity being not much greater than in the conventional radical procedure.

This operation thus accomplishes removal of 2 primary lymphatic drainage areas, the axillary and the internal mammary, in continuity with the breast, with negligible mortality and morbidity and it has produced a 10% improvement in 5-year survival figures for medial and subareolar lesions. It should be carefully considered when one is faced with the treatment of lesions in these situations.

#### *Radiotherapy in Association with Radical Mastectomy*

The 2 problems which arise regarding radiotherapy and radical mastectomy are, firstly, whether radiotherapy should be given pre-operatively or post-operatively and, secondly, whether it should be given by routine to all cases or to selected cases only.

There are several objections to pre-operative radiotherapy. From the purely technical aspect, capillary bleeding is increased if radiotherapy is employed before surgery and, also, wound healing may be delayed when radiotherapy precedes surgery. But a more serious consideration is the delay which must necessarily occur between the starting of radiotherapy and eventual surgery. In an analysis of 3,988 cases at Memorial Center, Adair<sup>1</sup> found that the 5-year survival rates were poorer in those cases in which this delay occurred as compared with more favourable results when surgery was carried out first. One final disadvantage of pre-operative radiotherapy is that selective radiotherapy cannot be employed with any degree of accuracy until surgery and pathological examination have been carried out. There is one instance, however, in which pre-operative radiotherapy should be employed. When a skin graft is

required, early post-operative irradiation becomes difficult; hence those cases in which grafting is anticipated should have pre-operative radiotherapy, i.e. cases with small breasts or cases with widespread skin involvement.<sup>10</sup>

Routine radiotherapy is employed in the post-operative phase by some surgeons, but, as Harrington<sup>11</sup> showed in an analysis of over 5,000 cases from the Mayo Clinic, those cases which are not found to have nodal involvement at surgery are not benefited by being given a routine course of radiotherapy. In these cases radical surgery alone is sufficient and radiotherapy should be reserved for local recurrence, if any. However, if the lymph nodes are found to contain metastases, not only is generalized dissemination of disease a strong possibility, but also the incidence of local cutaneous recurrence is much higher. These cases should all receive post-operative radiotherapy as a routine.

#### TREATMENT OF SPECIAL VARIETIES OF BREAST TUMOUR

##### A. Carcinoma of the Male Breast

In a report of 146 cases of carcinoma in the male breast Treves and Holleb<sup>12</sup> found that about 1/3rd of their cases were inoperable. This was due mainly to late diagnosis as shown by the fact that the median duration of symptoms before the first medical consultation was 9 months. But it is also a well-known fact that the small size of the male breast facilitates spread of disease to lymph nodes and elsewhere and this fact must also aid in producing many inoperable cases. Their 5-year survival rate, free of disease, was only 29.1%.

But it is an interesting fact that of the 81 operable cases which were treated by radical mastectomy, between 41.9% and 55.7% survived 5 years free of disease (the range in survival rate depended on whether indeterminate cases were included or not). This indicates that the outlook need not necessarily be poor if cases are seen early in an operable stage.

The treatment of choice in the operable cases is by radical mastectomy with skin graft, which should be preceded by radiotherapy. The treatment of advanced cases is dealt with later in the paper.

##### B. Inflammatory Carcinoma of the Breast

Lee and Tannenbaum<sup>13</sup> reported on a series of 28 cases of inflammatory carcinoma of the breast from Memorial Hospital. They were the first to employ this term for the disease and to describe the disease as comprehensively as it is understood today. They pointed out that pregnancy and lactation were not a necessary prerequisite of the disease; in fact none of their cases was either lactating or pregnant. Inflammatory carcinoma may of course occur during pregnancy and lactation. Treves<sup>14</sup> reported on 3 rare cases of inflammatory carcinoma in males.

Treatment of this form of breast cancer is uniformly poor since wide dermal lymphatic invasion, as manifested by extensive reddening and oedema of the breast skin, is associated with rapid dissemination of the disease, which is placed beyond the realm of curative surgery. Radiotherapy should be given to these patients and further palliation afforded as described later.

##### C. Carcinoma associated with Pregnancy and Lactation

Carcinoma of the breast occurring during pregnancy and lactation carries a poor prognosis; similarly, pregnancy

supervening in a patient who has been, or is being, treated for cancer of the breast will diminish the outlook for cure of the cancer. The reason for this is the carcinogenic action of the high level of oestrogen which is present during pregnancy. An additional factor in the first group of cases is the increased vascularity and engorgement of the breast, which facilitates the rapid spread of cancer cells and may well mask the tumour growth and hence prevent its early detection.

Radical mastectomy is carried out on all the operable cases in the first group as soon as is practicable. In addition it is recommended that pregnancy should be terminated<sup>15, 16</sup> in both groups of cases; by therapeutic abortion in the first trimester and by induction of labour in the third trimester. In the second trimester the decision to terminate pregnancy must depend upon individual circumstances.

Adair<sup>15</sup> has shown an increase from 44% to 69.6% in 5-year survival rate in operable cases in whom pregnancy was terminated. This is a potent argument in favour of termination of pregnancy.

Oöphorectomy may be undertaken prophylactically in order to attempt to improve the prognosis but there is no definite evidence that this occurs.

##### D. Paget's Disease

In Paget's disease eczema of the nipple and areola is usually associated with an underlying tumour. There is wide agreement that radical mastectomy is the treatment of choice in all cases in which a palpable malignant tumour is present. However, in the absence of a palpable tumour some surgeons would perform a simple mastectomy only. But Haagensen<sup>2</sup> advocates radical mastectomy in all cases, arguing that multifocal intraductal carcinoma, and even occasional microscopic lymph-node metastases, may be present without there being any evidence of a palpable tumour mass. On these grounds it would certainly be wise to perform a radical mastectomy even in the absence of a palpable mass, but individual circumstances should temper the decision in these cases.

##### E. Bilateral Breast Carcinoma

Simultaneous bilateral independent breast carcinoma is rare. However, between 1.3% and 5% of cases having a radical mastectomy can be expected to develop an independent primary lesion in the remaining breast at a later date.<sup>17</sup>

The differentiation of a non-simultaneous independent lesion from metastatic spread of the original lesion can be extremely difficult, and depends mainly on evidence that there is no local recurrence from the first lesion at the original site, and that there is no evidence of metastatic spread from the first lesion in bone or in soft tissue.<sup>2</sup> The clinical course of the case after treatment of the second lesion must be compatible with that of a new primary lesion.<sup>17</sup> Farrow<sup>17</sup> states that the histological demonstration of *in situ* carcinoma within the duct system of the second breast affords absolute proof that the lesion is primary in that breast; histological type differences are not of the same value in differentiation.

Treatment of a second primary is by radical mastectomy, followed by radiotherapy if indicated. Harrington<sup>18</sup> stated that the treatment of a second primary produced survival rates which are superior to those in unilateral carcinoma. Farrow's results,<sup>17</sup> however, contradicted this and showed

that the prognosis is poorer after a second radical mastectomy. He also pointed out that the longer the interval before the occurrence of the second primary, the better the outlook.

#### F. *Sarcoma of the Breast*

On the basis of the fact that lymph-node involvement is extremely rare (4% of 100 cases) in this disease, except in primary lymphosarcoma, melanosarcoma and carcinosarcoma, Adair<sup>19</sup> advocated simple mastectomy. In these latter conditions radical mastectomy would be indicated because of possible nodal involvement. These views appear to be generally accepted,<sup>16</sup> but some surgeons advocate radical mastectomy in all cases of sarcoma of the breast<sup>10</sup> in order to achieve thorough removal of the tumour and adjacent soft tissues (which may be involved) and not primarily with the object of clearing the axilla of its contents. The final decision regarding the type of surgery to be performed should therefore be made according to the individual circumstances of each case.

#### G. *Lymphangiosarcoma in the Lymphoedematous Post-mastectomy Arm*

This tumour is discussed in this section of the paper merely for convenience. Stewart and Treves<sup>20</sup> first described this condition. It occurs after a latent period of many years in an upper limb which has been the seat of lymphoedema following radical mastectomy. It usually occurs in patients who have not received post-operative radiotherapy and it is a rare condition. The lesions appear as purplish-red macules which enlarge and become confluent and have a tendency to ulcerate. They commence on the arm and spread distally to the fingers and sometimes proximally to the adjacent chest wall. The histology closely resembles that of Kaposi's sarcoma.

The treatment in most of Stewart and Treves' cases has been inter-scapulo-thoracic amputation, although radiotherapy may be of some value. In any case, death from pulmonary metastases is not long delayed, either with or without treatment.

#### PALLIATIVE TREATMENT

Palliative treatment is employed for disease which is so locally advanced that it is unsuitable for radical mastectomy, for recurrent local disease following initial radical mastectomy, and for metastatic disease (broadly speaking, stages III and IV).

The first consideration in palliation is whether the disease is localized and isolated to certain few specific areas or, alternatively, whether there is generalized or widespread metastatic involvement. In the former case local measures to specific areas suffice entirely and systemic measures such as surgical endocrine ablation or hormonal therapy are unnecessary and are not indicated. These measures should be held in reserve until there is evidence that the disease is disseminated and consequently beyond the scope of local therapy alone. Certain local measures such as simple mastectomy or intrathoracic nitrogen mustard may, of course, be combined with systemic therapy when the disease is advanced.

#### LOCALIZED DISEASE

##### 1. *Radiotherapy*

A. *Radiotherapy for Soft-tissue Disease.*<sup>2</sup> For recurrence of disease in the chest wall or axilla or supraclavicular

region, radiotherapy is indicated and provides a successful form of treatment. Radiotherapy may be employed for the inoperable case in order to produce alleviation of local symptoms such as may be produced by tumour fungation. This is especially the case when even a palliative simple mastectomy is impracticable because of the extent of local spread and the inadvisability of cutting directly through tumour. Unilateral pulmonary parenchymal disease which is limited in extent may also be irradiated.

B. *Radiotherapy for Bony Disease.* If radiography reveals localized and limited areas of metastatic involvement, then these areas may profitably be irradiated. Radiotherapy may even be afforded on good clinical suspicion that bone pain is metastatic in origin, even in the absence of radiological proof of metastases, since radiological proof may be late in making itself manifest. According to Garland *et al.*<sup>21</sup> 70% of patients who have bony metastases are relieved of pain by radiotherapy. This is a far better result than can be expected with any endocrine measure and hence endocrine measures should clearly be reserved only for cases in which radiotherapy becomes impracticable because of widespread bony involvement.

##### 2. *Surgery*

For the growth which is beyond the scope of cure, simple mastectomy, provided this can be accomplished without cutting directly across tumour tissue, should be carried out. Post-operative radiotherapy should be given to the chest wall. Isolated tumour recurrence on the chest wall following radical mastectomy after a long interval may be locally excised with a good chance of success. However, local excision for early or multiple recurrences should be avoided because success is unlikely.

##### 3. *Chemotherapy*

Pleural effusions may be treated by means of nitrogen mustard injected into the pleural cavity<sup>22</sup>. In order to obtain the best results the chest should be aspirated to dryness before the introduction of the drug in the dose of 0.4 mg. per kg. of body weight. The greater the extent of pleural metastatic disease the more likely is the drug to remain in the pleural cavity and to exert its effects locally on these lesions.

Weisberger *et al.*<sup>23</sup> have reported a significant improvement in 65% of patients thus treated. Significant improvement is indicated either by absence of fluid accumulation for the duration of the patient's life, or by a reduction in fluid accumulation and hence a diminution in the frequency with which aspiration is required. Peritoneal and pericardial effusions may be similarly benefited. Effusions from primary lesions other than primary breast cancer may also be similarly benefited.

Treatment with nitrogen mustard is preferred to treatment with radio-active substances such as gold and gives similar results.<sup>2</sup> Nitrogen mustard is easier to obtain, cheaper, less hazardous, and easier to use. Nausea and vomiting may be unpleasant side-effects and the white blood count may become depressed, but these are not serious disadvantages.

#### DISSEMINATED DISEASE

When breast cancer becomes widely disseminated, treatment by altering the hormonal status of the patient has been shown in recent years to achieve palliation in a significant

proportion of cases. Treatment may be by medical means (hormones), or by means of surgery.

### 1. Hormonal treatments are as follows:

#### A. Oestrogens

Paradoxically, oestrogens, which are well-known carcinogenic agents, have a profound palliative effect, but only on breast cancers which occur in the late postmenopausal period, i.e. more than 5-10 years after cessation of the menses. The premenopausal and early postmenopausal cases may be adversely affected and oestrogen should not be given in these cases because of the danger of stimulating tumours which may already be dependent on oestrogen for their growth.

The mechanism of action of oestrogen in the late postmenopausal cases does not appear to be known with any degree of certainty but it may be due to pituitary depression.

Oestrogen is especially useful for soft-tissue lesions, causing a 41% objective regression in these lesions as opposed to only 28% objective regression in osseous lesions. Duration of life averages about 15 months in cases which respond to oestrogen, as opposed to only 8 months in those cases which do not respond.<sup>24</sup>

Any of the various oestrogenic preparations in common clinical use may be employed, for instance, diethyl stilboestrol, 15 mg. per day. Side-effects such as nausea and vomiting, skin pigmentation, uterine bleeding and salt and water retention may occur. Because of this last effect the drug should be employed with caution in patients with cardiac disease.

#### B. Androgens

These hormones appear to be equally effective in either pre- or postmenopausal patients. Objective improvement in skeletal lesions occurs in a slightly higher proportion of cases than it does in soft-tissue lesions, but it should be noted that the total figure is low, being under 20%. Objective improvement may be maintained from between 2 and 11 months.<sup>24</sup>

Since oophorectomy is more effective in premenopausal cases and since oestrogen is more effective in late postmenopausal cases,<sup>16</sup> it is logical to reserve androgens for use only when further improvement with these measures ceases to take place.

The mode of action of androgens is unknown but they may act by neutralizing the effects which endogenous oestrogen produces, i.e. 'physiological castration'.

The preparations which are usually employed are either testosterone propionate, 50-100 mg. 3 times per week by intramuscular injection or, alternatively, methyl testosterone, 100 mg. per day by the oral route; both preparations appear to be equally effective. Masculinization, salt and water retention and hypercalcaemia may occur as serious side-effects. Masculinization may possibly be avoidable with certain of the newer androgenic preparations but it must be borne in mind that a decrease in masculinizing effects may well be associated with a decrease in effect on tumour growth.<sup>25</sup>

#### C. Adrenal Corticoids

Cortisone and its related compounds produce about 40% objective remission in both oestrogen-dependent and -independent tumours. Remission can occur either before or

after surgical castration alone and also before or after a combined procedure of castration and adrenalectomy. However, remissions may be of short duration.<sup>26</sup>

The mechanism of action of adrenal corticoids is speculative but, as is well known, exogenous cortisone and its analogues suppress the activity of the adrenal glands and cause them to atrophy. It is supposed that oestrogen formation by the adrenal glands is suppressed by the atrophy which follows the administration of exogenous cortisone, producing what may be termed a 'chemical adrenalectomy'. Of course, direct action of cortisone on tumour tissue is an equally plausible explanation of its mode of action. Nevertheless, the concept of 'chemical adrenalectomy' has proved useful at Memorial Hospital in predicting the response to surgical adrenalectomy. Failure to respond to a trial period of corticoid therapy usually indicates that surgical adrenalectomy will also fail and is therefore contra-indicated. Conversely, success with corticoids usually indicates that surgical adrenalectomy will also succeed. Cade<sup>27</sup> agrees with these observations.

As has already been indicated, remissions are of short duration and for this reason corticoids are best reserved for lesions in which either oophorectomy, oestrogens or androgens have failed to produce a response, or have ceased to maintain improvement. The use of corticoids should be given an adequate trial before adrenalectomy for the reasons given.

Prednisone, because of the minimal side-effects, is the drug of choice at present, the usual dose being 20 mg. daily.

### 2. Surgical Palliative treatments are as follows:

#### A. Oophorectomy

Bilateral oophorectomy, by removing the major source of endogenous oestrogen, produces a 44% objective remission in premenopausal patients for an average period of 9 months.<sup>28</sup> As is the case with androgen administration ('physiological castration'), the best results are achieved in bony lesions.<sup>16</sup> The results are, however, far superior if oophorectomy is performed (44% remission as against less than 20%).

X-ray castration is sometimes used in preference to surgical ovarian ablation but it should be borne in mind that, although ovarian irradiation may produce amenorrhoea, this is not necessarily indicative of total destruction of ovarian function. Treves<sup>24</sup> has found that ovarian irradiation may on occasion favourably influence a lesion in the initial stages but, later when the lesion ceases to regress, further amelioration by oophorectomy may be obtained, thus indicating that 'X-ray castration' was not entirely successful.

Oophorectomy may also be employed in the early postmenopausal period (up to 5-10 years), but after this period the success achieved by this means is very small. Treves<sup>24</sup> found that only 12% of all postmenopausal patients improved after oophorectomy probably because their oestrogen levels were in most cases insignificant and hence oophorectomy was bound to achieve very little.

Finkbeiner<sup>29</sup> has shown that there is a marked correlation between the level of circulating oestrogen and the type of cell found on vaginal-smear examination. This provides a fairly useful weapon in predicting which postmenopausal women are likely to respond to oophorectomy, and also

which premenopausal women with occasional low hormone levels are unlikely to respond to oophorectomy.

Tumours which depend on oestrogen for their growth will respond to oophorectomy because the main source of oestrogen in the body is eliminated by the operation. When these cases begin to relapse after an initial remission following oophorectomy, then adrenalectomy may produce a further remission by eliminating an additional source of oestrogen. But tumours which grow independently of oestrogen will not respond to oophorectomy nor will they respond well to subsequent adrenalectomy.<sup>30</sup> Thus oophorectomy is an extremely useful tool in the differentiation of oestrogen-dependent from oestrogen-independent tumours, and it provides a valuable indicator of the cases which are likely to benefit from adrenalectomy. On this account and, of course, also because it is the most effective weapon available in the premenopausal and early postmenopausal cases, oophorectomy is the initial treatment of choice premenopausally and early in the postmenopausal period.<sup>28</sup>

#### B. Orchidectomy

Orchidectomy in the male patient who has inoperable or recurrent carcinoma of the breast, produces a clinical remission which is similar to that produced by the same procedure in carcinoma of the prostate. Bony lesions and soft-tissue lesions both respond, the former more so than the latter, and survival time is significantly increased.<sup>31</sup> A 'fairly satisfactory' response from orchidectomy in inflammatory carcinoma in males has been noted.<sup>32</sup>

Huggins and Taylor<sup>33</sup> also reported excellent results with orchidectomy in cancer of the male breast. They attempted to treat some cases by means of stilboestrol alone, but did not note any objective improvement. Cases which they treated with testosterone were aggravated. Orchidectomy is an extremely useful measure in advanced male breast cancer and is worthy of greater cognizance.

#### C. Adrenalectomy

Analysing the literature to the date of writing, Lipsett *et al.*<sup>34</sup> found that 155 cases out of 367 which they collected had obtained remissions. There were 22 operative deaths. In their own series of 70 cases they obtained a mean survival time of 417 days in those cases which had a remission, as opposed to 170 days in those who failed to respond to adrenalectomy. It is thus evident that adrenalectomy is a worth while procedure, but in only about 40% of cases. An interesting finding,<sup>32</sup> which may account for many of the failures following adrenalectomy, is that in 100 consecutive autopsies 32 cases were found to have accessory adrenal tissue, usually around the coeliac axis, which is left behind in the usual adrenalectomy. The problem is to select for surgery those cases which will respond satisfactorily.

It has already been indicated that a favourable response to oophorectomy points to an oestrogen-dependent tumour and that these cases respond well to adrenalectomy. This is an extremely useful means of selecting suitable cases but, clearly, it cannot be used in late postmenopausal cases since these cases are not suitable for oophorectomy in the first instance.

Another valuable method of selecting suitable cases for adrenalectomy is, as indicated before, the response to a trial of corticoids. A good response to corticoids indicates

that a good response to adrenalectomy can be anticipated and *vice versa*.

Cade<sup>27</sup> mentions 3 further criteria for selection of cases for adrenalectomy: (1) Cases which respond to oestrogens or androgens are more likely to respond to adrenalectomy; conversely, if these hormones are ineffective, the response to adrenalectomy can be expected to be poor. (2) Cases which are distinctly aggravated by hormone administration, and hence have hormone-dependent tumours, will have a good response to adrenalectomy. (3) Cases with osteolytic bone lesions in whom the serum calcium rises after hormone administration are also suitable for adrenalectomy.

The age of the patient and the histology of the tumour have not been found to be useful agents in the selection of cases, according to Lipsett *et al.*<sup>34</sup> and Cade.<sup>27</sup> Cade's findings, however, contradict those of Huggins and Dao<sup>35</sup> who do find age and histology of some use in selection of suitable cases.

#### D. Hypophysectomy

This procedure has only been in use for breast cancer during the past few years and its place in therapy is not yet settled. In theory it is an extremely logical procedure for the treatment of disseminated breast cancer, since it eliminates the adrenocorticotrophic hormone and the gonadotrophins, and hence should (but does not always) entirely eliminate oestrogen and progesterone from the body. It also eliminates prolactin and growth hormone. These latter may be as important as oestrogen and progesterone in the growth of breast cancer.<sup>36</sup>

Luft and Olivecrona<sup>37</sup> collected 208 cases of hypophysectomy from the literature and found that objective remission had occurred in 115 cases i.e. in approximately 55%. In their own series they report a 17-month duration of remission.

Atkins *et al.*<sup>38</sup> have compared the effect of hypophysectomy on advanced breast cancer with the effect of combined oophorectomy and adrenalectomy in a series in which cases were chosen for each procedure by random selection. There was no statistically significant superiority of the one procedure over the other, although results appeared to be better in the cases subjected to hypophysectomy.

Various methods have been used in approaching the pituitary gland. Transphenoidal and transfrontal approaches have been reported by Lipsett and Pearson.<sup>30</sup> Pituitary stalk section and proton bombardment with the synchro-cyclotron are mentioned as being worthy of further investigation, by Atkins and others.<sup>38</sup> Pituitary radon implantation has been described by Forrest and Peebles-Brown<sup>39</sup> The best approach has yet to be finally settled.

Complete removal or inactivation of the pituitary is not always achieved by these means and accessory pituitary tissue has been found in sites outside the sella turcica; this will obviously vitiate the results of the above-mentioned procedures.

The indications for interference with the pituitary are by no means settled. Luft and Olivecrona<sup>37</sup> state that patients who responded to other forms of endocrine treatment previously will most probably also respond to hypophysectomy; but failure of earlier response to other endocrine measures does not necessarily indicate that hypophysectomy will fail. A smaller percentage of success can however, be expected. They had a very favourable response in 2 cases with male breast cancer but Treves<sup>32</sup> was unable to obtain

a similar response in 2 of his cases, who had previously had an unsuccessful orchidectomy.

#### CONCLUSIONS AND SUMMARY

1. In selecting cases for curative treatment, guidance should be obtained from the criteria presented. The ultimate choice, however, should depend on the individual case and the individual surgeon.

2. Radical mastectomy is the operation of choice if attempt at cure is the aim. McWhirter's treatment, while sound in theory, cannot at present be said to be superior in practice.

3. In the field of extended radical surgery Urban's procedure for medial and subareolar lesions should be given careful consideration.

4. Post-operative radiotherapy produces better results than pre-operative therapy, but it is necessary only in cases with positive nodes. Pre-operative therapy is given to skin-short cases.

5. (a) Male breast cancer has a poor prognosis but results are fairly good in operable cases. Treatment should be by radical mastectomy with skin graft preceded by radiotherapy.

(b) Because radical mastectomy is ineffective, the treatment of inflammatory carcinoma is limited to radiotherapy and palliative measures.

(c) Carcinoma associated with pregnancy and lactation is treated by radical mastectomy and termination of pregnancy.

(d) Paget's disease, which is usually associated with an underlying palpable tumour, calls for radical mastectomy. In cases without a palpable tumour it is wiser to perform a radical mastectomy, although simple mastectomy may be used in individual circumstances.

(e) Successive involvement of a second breast by an independent new primary lesion occurs in up to 5% of cases; these lesions should be treated by radical mastectomy.

(f) Simple mastectomy suffices for most cases of sarcoma, but radical mastectomy achieves more thorough removal of the tumour.

(g) Lymphangiosarcoma of the arm following lymphoedema has a poor prognosis; interscapulo-thoracic amputation and radiotherapy have been used in treatment.

6. (a) In the palliation of localized disease radiotherapy is useful for local recurrence, inoperable breast lesions and limited unilateral lung involvement. It is very efficacious in bony disease.

(b) Surgery for palliation of localized disease is limited to simple mastectomy and resection of late, isolated tumour recurrence.

(c) Local treatment with nitrogen mustard is very useful for pleural effusions and also for pericardial effusions and ascites. It is preferable to the use of radio-active substances.

7. (a) In the hormonal treatment of the disseminated form of the disease oestrogens are best used in late postmenopausal cases, especially those with soft-tissue lesions.

(b) Androgens are not as effective as oophorectomy

premenopausally or oestrogen postmenopausally, and should be used when these measures fail.

(c) Adrenal corticoids produce good remissions but these remissions only last for a short period. They should be used when oophorectomy, oestrogens or androgens fail and also as a test before adrenalectomy.

8. (a) In the surgical treatment of the disseminated form of the disease oophorectomy is the initial treatment of choice in premenopausal and early postmenopausal cases. X-ray castration is not recommended.

(b) Orchidectomy in males with disseminated disease is a very useful measure.

(c) Adrenalectomy is capable of producing good remissions in many cases. Indications for its use are: Relapse following an initially good response either to oophorectomy or any of the hormones; distinct aggravation of disease by previously used hormone treatment; and a rise in serum calcium after hormone treatment.

(d) Hypophysectomy produces as good results as adrenalectomy, especially in cases which have previously responded to other endocrine measures.

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#### REFERENCES

1. Adair, F. E. (1949): *Ann. Roy. Coll. Surg. Engl.*, **4**, 360.
2. Haagensen, C. D. (1956): *Diseases of the Breast*. Philadelphia and London: W. B. Saunders Co.
3. McWhirter, R. (1955): *Brit. J. Radiol.*, **28**, 128.
4. Andreassen, M. and Dahl-Iversen, E. (1949): *J. Int. Chir.*, **9**, 27.
5. Handley, R. S. (1952): *Proc. Roy. Soc. Med.*, **45**, 565.
6. Urban, J. A. (1956): *Surg. Clin. N. Amer.*, **36**, 1065.
7. Wangenstein, O. H., Lewis, F. J. and Arbelger, S. W. (1956): *Ibid.*, **36**, 1051.
8. Urban, J. A. (1958): *CA (N.Y.)*, **8**, 20.
9. *Idem* (1957): Personal communication.
10. Aird, I. (1957): *A Companion in Surgical Studies*. Edinburgh and London: Livingstone.
11. Harrington, S. W. (1952): *J. Amer. Med. Assoc.*, **148**, 1007.
12. Treves, N. and Holleb, A. I. (1955): *Cancer (Philad.)*, **8**, 1239.
13. Lee, B. J. and Tannenbaum, N. E. (1924): *Surg. Gynec. Obstet.*, **39**, 580.
14. Treves, N. (1953): *Surgery*, **34**, 810.
15. Adair, F. E. (1953): *Surg. Clin. N. Amer.*, **33**, 313.
16. Lewison, E. F. (1955): *Breast Cancer*. Baltimore: The Williams and Wilkins Co.
17. Farrow, J. H. (1956): *Cancer (Philad.)*, **9**, 1182.
18. Harrington, S. W. (1953): *Ann. Surg.*, **137**, 843.
19. Adair, F. E. (1946): *Surgery*, **19**, 55.
20. Stewart, F. W. and Treves, N. (1948): *Cancer (Philad.)*, **1**, 64.
21. Garland, L. H., Baker, M., Picard, W. H. and Sisson, M. A. (1950): *J. Amer. Med. Assoc.*, **144**, 997.
22. Karnofsky, D. A., Abelmann, W. H., Craver, L. F. and Burchenal, J. H. (1948): *Cancer (Philad.)*, **1**, 634.
23. Weissberger, A. S., Levine, B. and Storaasli, J. P. (1955): *J. Amer. Med. Assoc.*, **159**, 1704.
24. Treves, N. (1954): *Amer. Practit.*, **5**, 518.
25. Kennedy, B. J. (1957): *Cancer (Philad.)*, **10**, 813.
26. West, C. D., Li, M. C., Maclean, J. P., Escher, G. C. and Pearson, O. H. (1954): *Proc. Amer. Assoc. Cancer Res.*, **1**, 51.
27. Cade, S. (1957): *Cancer (Philad.)*, **10**, 777.
28. Pearson, O. H., Li, M. C., Maclean, J. P., Lipsett, M. B. and West, C. D. (1955): *J. Amer. Med. Assoc.*, **159**, 1701.
29. Finkbeiner, J. A. (1958): Personal communication.
30. Lipsett, M. B. and Pearson, O. H. (1956): *Med. Clin. N. Amer.*, **40**, 773.
31. Treves, N. (1949): *Cancer (Philad.)*, **2**, 191.
32. *Idem* (1958): Personal communication.
33. Huggins, C. and Taylor, G. W. (1955): *Arch. Surg. (Chicago)*, **70**, 303.
34. Lipsett, M. B., Whitmore, W. F., Treves, N., West, C. D., Randall, H. T. and Pearson, O. H. (1957): *Cancer (Philad.)*, **10**, 111.
35. Huggins, C. and Dao, T. L.-Y. (1954): *Ann. Surg.*, **140**, 497.
36. Editorial (1957): *Lancet*, **272**, 515.
37. Luft, R. and Olivecrona, H. (1957): *Cancer (Philad.)*, **10**, 789.
38. Atkins, H. J. B., Falconer, M. A., Hayward, J. L. and Maclean, K. S. (1957): *Lancet*, **272**, 489.
39. Forrest, A. P. M. and Peebles-Brown, D. A. (1955): *Lancet*, **268**, 1054.

#### BOOKS RECEIVED : BOEKE ONTVANG

*The Neurologic Examination*. Incorporating the Fundamentals of Neuroanatomy and Neurophysiology. 2nd Edition. By Russell N. DeJong, M.D. Pp. xv+1078. 368 Illustrations. \$20.00. New York: Paul B. Hoeber, Inc. 1958.

*Diseases of Children in the Subtropics and Tropics*. By H. C. Trowell, O.B.E., M.D., F.R.C.P. and D. B. Jelliffe, M.D., M.R.C.P., D.C.H., D.T.M. & H. Pp. xvi+919. Illustrations. 105s. net. London: Edward Arnold (Publishers) Ltd. 1958.

## A MODIFIED STAINING TECHNIQUE FOR TRICHOMONAS VAGINALIS

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The laboratory diagnosis of many diseases is a relatively simple undertaking if the specimen is fresh and available very soon after it has been taken. When, however, the patient is far removed from the laboratory, problems are presented which may influence the reliability of the result.

This is the case with *Trichomonas vaginalis*, which does not survive in swab specimens for more than a few hours. It has consequently been necessary in cases at some distance from the laboratory to obtain smears of vaginal discharge for specific examination. Such smears must obviously be stained to show up the pathogenic organisms and numerous techniques have been used by other workers experimenting in this field.

Fowler<sup>1</sup> used 5% methyl violet but admits that the nucleus, axostyle, undulating membrane and flagella are not always seen. This method, however, is recommended for immediate staining and is not intended for dry smears submitted to a routine laboratory.

Golub and Shelanski<sup>2</sup> developed a modification of the Giemsa stain. A freshly prepared smear, however, must be fixed in a wet condition with osmic acid vapour before staining. This proves impossible in most cases as the average clinician is not equipped with the necessary materials.

Allison<sup>3</sup> stains with Sells's Negri but admits that this method is tricky, tedious and time-consuming and therefore poses the difficulties which are my intention to avoid in routine staining. Allison also states that the smear must still be moist with its own tissue juice when plunged into the stain. This, as already mentioned, is not always possible for *T. vaginalis* swab specimens dry within a few hours.

Liston and Lees<sup>4</sup> adopted a method using Leishman's stain. This proved to be too detailed in practice and they admit that the flagella, axostyle and undulating membrane are not shown.

The Giemsa stain, which is usually employed for staining malarial parasites and trypanosomes (1 part stain per 20 parts buffer solution, pH 7.3), is unsuitable for *T. vaginalis*. The inner structure of the organism becomes distorted and the flagella and the undulating membrane remain invisible. As a result it is often necessary to ask for further specimens in order to identify the organism with any degree of certainty.

## METHOD AND MATERIAL

To evaluate an improved staining technique which would give more satisfactory results, 3 factors must be considered: (1) Slide preparation, (2) the fixing or post-fixing of the slides, and (3) staining technique and the practicability of the staining method in a routine laboratory, with special reference to the all-important time and labour factors.

(1) The swabs which arrived in the laboratory were prepared by smearing the material on a slide and allowing it to dry. The result of this procedure was patchy thick material which stained deep blue with Giemsa and showed no cellular differentiation. Such slides were exceedingly difficult to deal with. Slides made by smearing the swab in a drop of saline obviated this danger and distributed the cellular material evenly over the slide. These slides were then allowed to dry completely before further handling.

(2) It was found that the most reliable staining results were obtained when slides were fixed immediately after preparation. For this purpose either methanol, methylated spirits or absolute alcohol can be used. If the doctor is not in a position to fix the slide after preparation, it can be post-fixed in the laboratory with one of the above fluids without ill effects on the staining results. Double fixing—in the laboratory, and at the moment of preparation—does not appear to interfere with the staining technique described below.

(3) The first stain investigated was iron haematoxylin. Although this gave satisfactory results (the flagella and internal structure were clearly visible, while the nucleus and metachromatic granules were well defined) it had the disadvantage of being too time-

consuming since the slides needed intermittent attention for a period of from 3 to 4 hours. Furthermore, proper fixing greatly influences the final appearance of the flagellate. Sublimite alcohol gives a mediocre result while the use of osmic acid vapour is more suitable, but also more tedious. Staining by Gram's method could be accomplished in a relatively short time, but it proved to be unsatisfactory, because it failed to stain either the internal structure, or the flagella, and the nucleus was ill-defined.

Giemsa's stain was then reinvestigated and it was found that amongst various dilutions, a 1-part stain to 5-parts buffer solu-

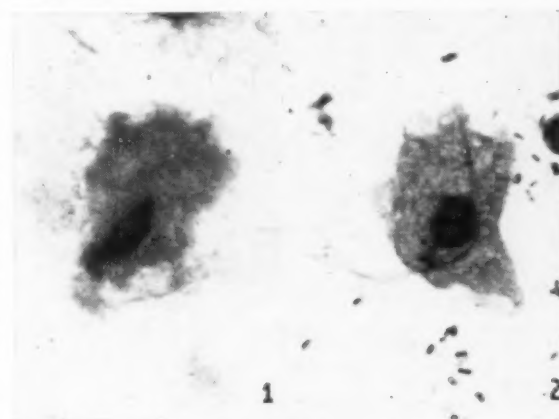


Fig. 1. *T. vaginalis* ( $\times 1500$ ). Giemsa old method.  
Fig. 2. *T. vaginalis* ( $\times 1500$ ). Giemsa new method.

tion (pH 7.3) applied for 20 minutes gave the most satisfactory results. Both the internal and the external structure of the organism were found to be clearly visible. The former stained a dark blue with a red nucleus and the latter was sharply outlined, showing clearly the flagella and undulating membrane (Figs. 1 and 2).

## DISCUSSION

The Giemsa stain, no doubt, is the most readily available stain in the average laboratory and, modified as described above, greatly reduces the time factor involved in staining. The results, even in poorly prepared smears, justify its application because certain features, such as the spindle-shaped nucleus, the contours of the organism, and the cytoplasmic inclusion, still make it possible to recognize and diagnose the organism easily. But, most important of all, distance from the laboratory is no longer a factor jeopardizing the reliable diagnosis of *T. vaginalis*. The fresh preparation remains the method of choice, but it is easier to detect the organism in a stained smear than a non-motile, partly degenerate, organism in a saline preparation.

## SUMMARY

A modified Giemsa stain technique is described which facilitates the diagnosis of *T. vaginalis* on smears.

To obtain the best staining results such slides should be prepared with a drop of saline, allowed to dry and pre-fixed in methanol, methylated spirits, or absolute alcohol before the slide is submitted to the laboratory.

## REFERENCES

1. Fowler, W. (1953): Brit. J. Vener. Dis., 29, 166.
2. Golub, L. J. and Shelanski, H. A. (1937): J. Lab. Clin. Med., 22, 1155.
3. Allison, G. A. (1943): Sth. Med. J. (Bgham, Ala.), 36, 821.
4. Liston, W. G. and Lees, R. (1940): Brit. J. Vener. Dis., 16, 34.

## ASSOCIATION NEWS : VERENIGINGSNUUS

A TRIBUTE TO DR. T. SHADICK HIGGINS, M.D., M.R.C.S., L.R.C.P., D.P.H., M.R.C.P.

Dr. A. W. S. Sichel, Chairman, Head Office and Journal Committee, writes: On 31 December 1958 Dr. T. Shadick Higgins will relinquish his post of Editor of the *South African Medical Journal* and his successor, Dr. A. P. Blignault, will assume duty as from 1 January 1959.

It is but fitting that I, as Chairman of the Head Office and Journal Committee, should pay tribute to Dr. Shadick Higgins on behalf of the Committee and, if I may claim the privilege, speak for the members of the Medical Association of South Africa as a whole in view of my very long and close association with him since the year 1922 when he arrived in Cape Town on his appointment as Medical Officer of Health of that city.

Soon after his arrival Dr. Shadick Higgins identified himself whole-heartedly with the Medical Association of South Africa, particularly as an office bearer in the Cape Western Branch, on the Council of which he served for over 25 years, besides being Chairman of its Ethical Committee and Parliamentary Committee at various times. He was President of the Branch in 1930.

He was a member of Federal Council from 1938 for several years and an elected member of the South African Medical and



Dr. T. Shadick Higgins

Dental Council from 1943 to 1948. He served on various Government and Provincial Commissions and has been a member of a great number of Committees both within and without the Medical Association.

When, in 1952, the post of Editor of the *South African Medical Journal* became vacant Dr. Higgins was one of the applicants for the position which was advertised. At the meeting of Federal Council held in Johannesburg in March 1953 he was appointed Editor with effect from 1 April 1953.

At that time doubt existed in the minds of some as to the wisdom of appointing a man well past the accepted age for retirement. However, his merits, his experience and his qualifications were so outstanding, and the need for a strong man to be at the helm so pressing, that the age factor was soft-pedalled.

Events during his tenure of office have amply justified his appointment and, although he feels the time has come for him to make way for a younger man, he retires from his post fortunately still full of vigour and enthusiasm and with the satisfaction of a job well done.

It is characteristic of the man that, on the recommendation of the Head Office and Journal Committee, and with the authority of the Executive Committee of Federal Council, he has been appointed, and is willing to play his part for the time being, as temporary full-time Assistant Editor. His very extensive administrative experience and his intimate knowledge of the working of the Association and its Journals will be invaluable to the newly appointed Editor until such time as a permanent official is appointed to take his place.

Dr. Shadick Higgins is a man of the greatest integrity and throughout his long career has been held in the highest esteem by his colleagues. He has earned the sincere thanks of the Association for the able and dignified manner in which he has edited the Association's Journals for over 5½ years. No praise is too high for the tactful and statesmanlike way in which he has carried out his duties in the face of criticism and under conditions which might have disheartened others during a difficult period.

I speak for all his many friends when I wish him continued good health and happiness for the future.

## MEETING OF FEDERAL COUNCIL AT PRETORIA, 1, 2 AND 3 OCTOBER 1958

(Continued from Issue of 20 December 1958, p. 1222)

125. *Federal Ethical Committee*: It was reported that the only matter dealt with by the Committee had been included in the Report of the Executive Committee. *Noted*.

## WORKMEN'S COMPENSATION ACT

126. *Report of Workmen's Compensation Act Sub-Committee*: A Report was submitted, in which a number of matters had been dealt with. These were as follows:

127. *Re-discussion of Sub-Item 3 of Item 40 of W.C.A. Handbook*: At a previous meeting of the Federal Council, Council had objected to the insertion of this sub-item, and the matter had been taken up with the Commissioner. As a result of discussions which had taken place, the Committee had resolved to recommend to Council that in view of the assurance given by the Commissioner, Sub-Item 4 of Item 40 be retained in the Medical Handbook. *Council Agreed*.

128. *Difficulties Facing Medical Practitioners in South-West Africa in Connection with W.C.A. Accounts*: It was stated that the Commissioner had been informed regarding the difficulties being experienced by practitioners in South-West Africa regarding the payment of accounts. The Commissioner had informed the Committee that his local area representative was busy dealing with the matter directly with the local doctors and that it was likely that most of the difficulties were in a process of being resolved. *Noted*.

129. *Travelling Expenses—Practitioners in Port Elizabeth Treating Workmen in Livingstone Hospital*: It had been reported to the Committee that complaints had been received from practitioners in Port Elizabeth regarding the non-payment of travelling fees by the Commissioner in connection with the treatment of patients

in the Livingstone Hospital situated outside the Port Elizabeth municipal boundary. This matter had been discussed with the Commissioner who had agreed that

- If the treating doctor had a consulting room within a three-mile radius of the hospital, he would not be paid travelling expenses unless it was for a first emergency call to the hospital, which was received whilst the doctor was either at his home or his consulting room in town. In this case the fee paid would be 2s. 0d. per mile (see Item 37 1(a) of the Tariff).
- If the treating doctor did not have a consulting room in the vicinity of the hospital, he would be paid travelling expenses according to Item 37 1(d) of the Tariff.
- If the treating doctor, in the interests of the patient, deliberately chose an anaesthetist who did not have a consulting room in the vicinity of the hospital (because of his special skill in administering anaesthetics) then the anaesthetist would also be paid for travelling expenses under Item 37 1(a) of the Tariff. *Noted*.

130. *Treatment of Trivial Injuries by Specialists*: It was reported that the Commissioner had informed the Committee that the policy of his Department in regard to this matter was as follows:

"Every case where an injured workman consults a specialist directly, without first having consulted a general practitioner, is considered on its own merits. If the condition complained of is of a trivial or minor nature which could as well have been treated by a general practitioner, then the general practitioner rates may be applied under Section 77 of the Act, read with para. 6(a) of the Preamble to the scale of fees, which provides that if a specialist is consulted for a

trivial injury, general practitioner rates only will be applied. If, however, a specialist's attention is considered reasonable and warranted, the higher rates will be paid.'

The Committee recommended to Council that this policy be accepted. Council *Agreed*.

131. *Filling In of Medical Forms*: It was reported that the Commissioner had drawn the attention of the Committee to the fact that certain practitioners were in the habit of completing the prescribed medical forms in an unsatisfactory manner, and that this led to unnecessary correspondence and also delay in the settling of accounts. He stated that in particular many doctors failed to satisfactorily describe the exact anatomical region affected by the injury. It had been agreed after discussion that members of the Commissioner's staff should draw up a suitable notice concerning this matter for insertion in the *Journal*, in order that the attention of all practitioners could be drawn to the difficulties which were being caused by the incomplete filling in of these forms. *Noted*.

132. *Free Choice of Doctor in W.C.A. Cases*: It was reported that a letter had been received from the East Rand Branch which requested that Council discuss with the Workmen's Compensation Commissioner the question of workmen injured on duty being encouraged to exercise their right to be attended by their own practitioners, and that the firms by whom they were employed should assist such workmen to exercise their right.

Dr. Vercueil stated that he had been appointed to meet the representatives of the Federated Chamber of Industries in Johannesburg some years previously and that the Chairman of the Chamber had agreed that notices would be displayed prominently in all workshops, drawing the attention of the workman to the fact that he had free choice of doctor in the case of an accident. He did not think that this had been done, and stated that he felt that another meeting should be arranged. Council *Agreed*.

In moving the adoption of his Report, Dr. Vercueil referred to the willingness of the Commissioner to meet the Association on all occasions.

The Chairman thanked Dr. Vercueil for his Report. The adoption of the Report was *Carried*.

133. *Sub-Committee on Rehabilitation*: It was reported that a meeting with the Secretary for Labour was being arranged. The Convener stated that further there was nothing to report to Council. *Noted*.

134. *Sub-Committee on Medical Education and Internships*: The Convener stated that there was nothing to report. *Noted*.

135. *Sub-Committee for Liaison with Dental Association of S.A.*: The Convener stated that there was nothing to report. *Noted*.

136. *Sub-Committee for Liaison with S.A. Nursing Association*: Council *Noted* that this matter had already been dealt with under the Report of the Executive Committee.

137. *Sub-Committee for Liaison with Pharmaceutical Society of S.A.*: Council *Noted* that this matter had already been dealt with under the Report of the Executive Committee.

138. *Amendment of Constitution of Northern Transvaal Branch*: It was stated that the Northern Transvaal Branch requested that Rule 15(a) of its Constitution be altered so that the number of members serving on the Branch Council would not become unwieldy. The basis of proportionate representation was to be altered from 20 to 60.

Council *Agreed* that Rule 15(a) of the Constitution of the Northern Transvaal Branch be amended accordingly.

139. *Second World Conference on Medical Education, Chicago, 1959*: The Secretary reported that Mr. T. B. McMurray and Prof. J. F. Brock were willing to represent the Association at this Conference. Council *Agreed* that they be appointed as the Association's representatives and that the question of the appointment of any further representatives be left to the Executive Committee with power to act.

#### REPORT OF AUGMENTED EXECUTIVE COMMITTEES

140. *Report of Augmented Executive Committee in the Transvaal*: A lengthy Report was submitted, dealing with matters which had received the Committee's attention since the last meeting of Council. Among these matters was the question of the new Transvaal Public Hospitals Ordinance. Arising from this matter, the Chairman stated that it was necessary for Council to nominate six persons, from among whom the Administration would choose two to serve in their personal capacities on the Appointments

Committee. The names put forward were Dr. Turton, Mr. J. G. A. du Toit, Mr. G. T. du Toit, Dr. M. Shapiro, Dr. Waks and Dr. Vercueil. Council *Agreed* that these six names be submitted to the Provincial Administration.

Dr. Struthers moved the adoption of the Report, which was *Carried* with acclamation.

141. *Report of Augmented Executive Committee in the Cape*: Dr. Sichel stated that the only matter which had required attention since the last meeting of Council had been the question of the honorary system which had been raised by the Cape Midlands Branch in relation to the two hospitals in Port Elizabeth. A meeting of the Liaison Committee had been held and the Administration was going into the financial implications of raising the honorarium and providing a travelling allowance. The Administration had agreed that a meeting be held two months later, provided that the necessary information could be obtained in time. So far, all the information had not yet come to hand, so that the further meeting had not been called.

Council *Agreed* that when the meeting was arranged, two representatives of the Cape Midlands Branch should be invited to attend the meeting in Cape Town, their travelling expenses being paid by the Association.

Dr. Sichel went on to say that it was necessary that the term 'honorary system' be defined. Dr. Schaffer suggested that it be defined as a system in which there is token payment only for services but in which there may be additional payment for out-of-pocket expenses. This was generally *Accepted* by Council.

Dr. Sichel then moved the adoption of his Report, which was *Carried*.

142. *Report of Augmented Executive Committee in Natal*: Mr. Armitage stated that he would prefer not to report at this stage, and Council *Agreed* that he report at the next meeting.

143. *Report of Augmented Executive Committee in the Orange Free State*: Dr. Theron stated that there was nothing to report. *Noted*.

#### EAST LONDON CONGRESS

144. *S.A. Medical Congress, East London, 1959*: Dr. Schaffer and Dr. McCabe reported progress. The latter stated that it was the intention of the Organising Committee to invite a few overseas visitors. He went on to mention that difficulty had arisen in regard to the date chosen for the Congress. The only available time from the point of view of the buildings which were necessary for the holding of Congress, was during the school holidays. Unfortunately, certain Jewish holidays fell at the latter part of that week.

Council generally *Agreed* that the Organising Committee should be left to give the matter consideration and to make such arrangements as would prove reasonably suitable to all members.

Dr. McCabe's report was received with acclamation.

145. *Appointment of President-Elect*: It was proposed by Dr. Schaffer, seconded by Dr. Alexander, that Dr. P. F. H. Wagner, of East London, be elected Vice-President/President-Elect for the year 1958-59. This was put to the vote and *Carried*.

146. *Association's Gold Medal*: The Secretary stated that he had received a nomination for the award of this Medal, and that in accordance with the rules the name would be announced and there would be no discussion. A vote would be taken at the next meeting of Council.

The name was read and *Noted*.

147. *Emeritus Membership*: The Secretary stated that the Southern Transvaal Branch had submitted four names for consideration for election to Emeritus Membership of the Association. Citations had also been submitted.

The nominations were dealt with seriatim, and Council *Agreed* that Dr. A. Temple Thurston, Dr. N. R. Smuts, Dr. I. P. Schobert and Dr. J. M. Watt be elected to Emeritus Membership of the Association.

Council agreed that certain other names put forward by the Southern Transvaal Branch be referred back to the Branch for further information.

148. *Public Subscriptions to Funds for Overseas Treatment*: The Secretary submitted a resolution from the Cape Western Branch, reading: 'This Branch wishes representations to be made to the Minister of Justice so that he may instruct magistrates not to grant permission for collections to be made from the public for the purpose of sending patients overseas, but rather that he should let registered charitable organisations handle such appeals after

proper medical screening had been done with the co-operation of the medical profession.'

It was reported that the Executive Committee recommended to Council that this resolution be approved. Council *Agreed*.

149. *Medical Council Rules regarding Advertising*: A memorandum by the Press Liaison Committee of the Southern Transvaal Branch was submitted. It was reported that the Executive Committee had agreed to recommend to Council that the views expressed in the memorandum be not supported. Council *Agreed*.

150. *Anomalies re Salary Scales—Health Departments*: A report by the Secretary and a memorandum by the Medical Officers of Health Group were submitted. It was reported that the Executive Committee had agreed to recommend to Council that the matter be referred to the Parliamentary Committee for Action. Council *Agreed*.

151. *National Cancer Association*: The Secretary reported that the Executive Committee had received a letter from the National Cancer Association, in which they asked that the Association should appoint a member to serve on the Cancer Association Sub-Committee on Professional Information and Education. The Executive Committee had agreed to recommend to Council that Dr. Lewis S. Robertson be the Association's representative. Council *Agreed*.

152. *Medical House (Pty.) Ltd.*: The Secretary stated that the Executive Committee had received a letter from the Secretary of Medical House (Pty.) Ltd., requesting that the interest rate on Medical House, Cape Town, be altered. The Committee had agreed to recommend to Council that the interest rate on the bond on Medical House, Cape Town, be reduced from 6½% to 5½% as from 1 January 1959.

Council *Noted* that this matter had been dealt with during the discussion on the Report of the Honorary Treasurer.

#### NOTICES OF MOTION

153. *Notices of Motion*: The Secretary stated that a Notice of Motion had been received to review and rescind the resolution taken by Council in regard to the transfer of the Eastern Trans-

vaal and Swaziland Division. The proposer and seconder had since asked that it be withdrawn. Council *Agreed* to the withdrawal of this Notice of Motion.

Notice of Motion from Dr. M. Shapiro and Mr. Wolfowitz was submitted, reading: 'That By-Law 6(c) be altered to read:

"Members who have served the Association continuously for at least 40 years shall become Honorary Life Members. The Branch concerned shall supply the necessary information to the Head Office of the Association."

This was *Noted*.

Notice of Motion from Dr. M. Shapiro and Mr. Wolfowitz was read as follows: 'That the ruling of the Chairman that the Southern Transvaal Branch has no right to withdraw from the Union-wide schedule of fees, be reviewed.' *Noted*.

Notice of Motion from Dr. Agranat and Dr. Turton: 'That previous resolutions of Council denying part-time specialists the right to employ assistants for Benefit Society work, be rescinded.' *Noted*.

154. *Naude Appeal Fund*: Dr. Purcell asked a question regarding the Naude Appeal Fund. The Secretary stated that the Executive Committee had agreed that such a Fund be approved and that the Honorary Secretary of the Transkei Branch should write a suitable letter to the *Journal*. *Noted*.

#### NEXT MEETING OF COUNCIL

155. *Date and Place of Next Meeting of Council*: On behalf of the Southern Transvaal Branch, Dr. M. Shapiro invited Council to meet in Johannesburg. Council *Agreed*, and further *Agreed* that the time of the meeting be decided by the Chairman of Council.

156. *Vote of Thanks*: The President, Dr. Schaffer, proposed a vote of thanks to the Chairman for his conduct of the meeting, and also thanked the staff for the services which they had rendered. He proposed a special vote of thanks to the President and members of the Northern Transvaal Branch and their wives for the hospitality which had been extended to members of Council. Acclamation. The meeting ended at 5.10 p.m.

(Concluded)

## REVIEWS OF BOOKS : BOEKRESENSIES

### MEDICAL RESEARCH

*Current Medical Research*. A reprint of the articles in the Report of the Medical Research Council for the year 1956-1957. Pp. v+54. 12 Figures. 3s. 6d. net. London: Her Majesty's Stationery Office. 1958.

This pamphlet is a reprint of the articles in the report of the Medical Research Council for 1956-57. The ingenuity of the organic chemist continues to be a source of never-ending amazement, at least to those of us who do not belong to that discipline. Not so long ago they unravelled the intricate and fascinating structure of nucleic-acid. Now we are presented with the complicated architecture of a protein molecule.

The 'Iron lung' type of respirator has serious drawbacks, chief of which is the inaccessibility of the patients to nursing. The earlier cuirass type caused much bruising. The latest models are free of this weakness. There are developments in other directions, e.g., Intermittent Positive Pressure Respirators.

Studies on influenza during 1957 are reported, especially in Asian influenza and trials with a vaccine against it.

'New' viruses of the respiratory tract, the adenoviruses, and of the intestinal tract, the ECHO viruses are reported; also the advances that have been made in the culture of the virus of measles. It has long been known that a virus may interfere with the growth of a completely unrelated virus. It looks as if the substance isolated and called interferon is responsible for this mechanism.

With the older laboratory tests for syphilis there was the serious disadvantage of the so-called 'false positive' reaction. The treponema-immobilization test overcomes this. Treponemal-agglutination tests have been devised and now a treponemal Wassermann reaction. Factors which influence the site of involvement in the cord in poliomyelitis and the severity of affection of muscles have been studied. There are community surveys in the study of rheumatoid arthritis. It is well known that pyrexia can be caused by other processes than infection. This study is concerned with fever provided by clinical substances, microbial pyrogens and

endogenous pyrogens. There is a report on 5 hydroxytryptamine (serotonin), its source and its action. Considerable advances have been made in the chemical (as opposed to the biological) assays of the female sex hormones. The study on radiostrontium is topical. The different effects at different age periods is interesting as well as the conditions under which the strontium is not so easily displaced by calcium in the bones. There is a report on experimental leukaemia and another on genetics in eye disease.

F.F.

### ANGIOGRAFIE VAN DIE NIERE

*Angiographie der Nieren*. Von Doz. Dr. E. Vogler und Prof. Dr. R. Herbst. Mit einem Vorwort von Hofrat Prof. Dr. A. Leb. XII+112 Seiten. 97 Abbildungen in 182 Einzeldarstellungen. DM 54. Stuttgart: Georg Thieme Verlag. 1958.

Ses metodes van angiografie van die niere word in besonderhede bespreek. Die perkutane katetermetode deur die arterie femoralis het die minste komplikasies en vereis nie 'n algemene narkose nie, wat dit die verkieslike metode maak. Die gerigte nierangiografie, waar daar 'n selektiewe vulling van 'n arterie renalis is, spruit hieruit. Omdat die pasiënt nie onder narkose is nie kan hy op die deurligtingstafel saamwerk deur in gewenste posisies te draai.

'n Belangrike kontraindikasie van nierangiografie is 'n onvolledige urologiese ondersoek—dit mag nie die roetineondersoeke vervang nie, maar dien as 'n laaste hulpmiddel by die preoperatiewe diagnose. 'n Belangrike indikasie is die sogenaamde eensydige funksielose nier, waar binne-aarse en retrograde metodes nie suksesvol is nie. Dit kan 'n antwoord gee op die vraag of die nier weer gaan funksioneer. Die grootte van die renale arterie, die nefrografiese resultaat en ander kriteria word in hierdie verband genoem.

Besonder mooi is die illustrasies van die veneuse fase in nierinfarkt. Die talle illustrasies is van hoë gehalte, met die uitsondering van twee wat Bucky-strepe wys. Oor die geheel is dit nie van belang nie.

Dit is waardevol om hierdie hoogstaande en omvattende monogram te lees. Dit is haas onontbeerlik vir diene wat direk met die verskillende tegnieke gemoeid is, nl. uroloë en radioloë. Die enigste hoofstuk wat teleurstel is die wat handel oor 'hipertensie van onbekende oorsprong'. Daar word ingegaan op die diagnose van feokromositoom, maar hipertensie as gevolg van nieraandoenings word ongelukkig afgeskeep.

A.D.K.

## SKIN GRAFTING

*Skin Grafting*. 3rd Edition. By James Barrett Brown, M.D. and Frank McDowell, M.D. Pp. xv+411. 328 Figures and 6 Color Plates. 105s. net. London: Pitman Medical Publishing Co. Ltd. 1958.

The authors have been generous with their illustrations and many excellent facial reconstructions are shown. Nasal reconstruction from arm flaps are seldom seen in England and excellent examples by this method, in addition to others by the more usual forehead flap method, are shown.

Burns of all types form a large part of the text. The resuscitative treatment is fully described and the paramount importance of whole blood transfusions is stressed. Substitutes, such as saline or plasma, are quite inadequate. Treatment with tannic acid, so popular before the last war, is rightly condemned and the use of vasoline dressings covered by pressure bandages is now routine treatment. Later reconstruction work following burn contractures is shown in considerable detail.

The authors are not keen on tube-pedicle flaps; they prefer square flaps where possible and use large square flaps, raised from the abdomen and based on the entire length of the arm, for large repairs of the lower leg.

The present edition includes a new chapter on repairs of the genitalia. Much can be done for these cases and the earlier they are treated the better. The shaft of the penis is covered with a split thickness graft. The functional result is very satisfactory. Scrotal loss is treated by placing the testicles in pockets in the thighs. Contrary to many authorities this is not necessarily followed by infertility.

This book can be strongly recommended as a valuable contribution to the armamentarium of the plastic surgeon.

N.P.

## THE BRAIN AND HUMAN BEHAVIOUR

*The Brain and Human Behavior*. Proceedings of the Association for Research in Nervous and Mental Disease. December 7 and 8, 1956, New York, N.Y. Volume XXXVI. Editors: Harry C. Solomon, M.D., Stanley Cobb, M.D. and Wilder Penfield, M.D. Pp. xi+564. Figures. \$15.00. Baltimore: The Williams & Wilkins Company. 1958.

The published Proceedings of the Association for Research in Nervous and Mental Disease have always been of a very high standard and this volume is no exception to that rule, but it contains work which is very complex and difficult to follow. Professor Lashley starts off with a most stimulating essay in which he dismisses the search for the ego as futile. He puts in its place 'mind', which is only an organization of activities, and he relegates 'self' to a distortion of body images. His arguments are more forceful than conclusive, as for instance when he states that 'we must expect the mechanical brain to be confused problems of self and object', but at least he has the courage to face up to questions which most neurologists shelve.

The chapter by Denny-Brown and Chambers on the parietal lobe is a splendid analysis of behavioural changes in the macaque with parietal lesions, and Denny-Brown forthrightly states that he considers these observations to be relevant to human behaviour.

As might be expected the temporal lobe and pharmacologically induced behavioural changes both receive a good deal of attention from numerous contributors, and finally Harold Wolff and his co-workers end the Proceedings with a notable chapter on the effect of stress on the highest integrative functions in man, showing that not only may children who are raised in a relentlessly hostile atmosphere behave as idiots, but that adults who are subjected to prolonged stress, isolation, frustration or revilement, may pass through recognizable and predictable stages of progressive impairment, comparable to the impairment observed in subjects with progressive loss of actual brain substance.

Difficult as much of the matter in this book is, there is much

that must be of vital importance to all those, apart from neurologists and psychologists, who are interested in the empirical and philosophical problems of human behaviour.

J.M.MacG.

## CEREBRAL PALSY

*Cerebral Palsy in Childhood*. By Grace E. Woods, M.D., D.P.H., D.C.H. With a Foreword by Peter Henderson, M.D., D.P.H. Pp. xii+158. 41 Figures. 27s. 6d.+1s. 0d. Postage. Bristol: John Wright & Sons Ltd. 1957.

Pioneer workers like Phelps, Perlstein and Carlson in America, and Eirene Collis and the Bobarths in England, have stimulated increasing interest in the diagnosis and management of the child with cerebral palsy. More and more diagnostic clinics, special schools and hostels are being established, and their work is widely publicized. In South Africa there are now several well-equipped schools, and Government grants are available.

It is now being recognized that far more can be done for these children than used to be thought, and a gloomy prognosis is often unjustified. Progress will depend on 2 factors: (1) early diagnosis and (2) proper facilities for education, training, and medical care, such as exist in the special schools previously referred to.

This book by Dr. Grace E. Woods is based on a survey conducted in Bristol during the last 5 years and is concerned mainly with the causation and clinical description of the many manifestations of cerebral palsy. Dr. Woods has made a useful contribution to our clinical knowledge of this difficult subject, but unfortunately she does not concern herself with methods of treatment or results. This is a pity for, as anyone interested in cerebral palsy knows, treatment is far from easy, and information about the methods which have been found useful in various centres, is urgently required.

Dr. Woods would be doing a service if she follows up this book with one describing in detail the organization of treatment and results at the school for spastic children with which she has been associated.

I.M.

## MEDICAL RESEARCH

*Methods in Medical Research*. Vol. 7. Editor-in-Chief: James V. Warren. Pp. xiii+237. Figures. \$7.50. Chicago: Year Book Publishers, Inc. 1958.

This is the 7th volume of this well known series on methods in medical research. Like its predecessors it consists of a series of articles on methods in highly specialized fields of research. This particular volume contains an apparently ill-assorted selection of subjects including the chemical investigation of the muscular tissues and methods for the study of the histology and cytology of the retina. These articles and the section on leucocytes however demonstrate clearly the attempts to gain some understanding of the biochemical activity of the cell. The section on haemodynamics is an extension of the earlier tried methods of investigation described in volume one of this series. Among the subjects included are the dye injection technique of Hamilton and Stewart for the measurement of cardiac output and the Korner-Shillingford method for estimating regurgitant flow. Perhaps the most interesting is the section on the measurement of the coronary blood flow. The ability to measure any changes in coronary blood flow is most important since such changes must influence the interpretation of the arteriovenous differences of substances concerned in myocardial metabolism.

This volume is intended as a reference book for research workers in their special fields. As such it is a valuable volume, but has little of interest for the general medical reader.

L.E.

## ENDOCRINE PATHOLOGY OF THE OVARY

*Endocrine Pathology of the Ovary*. By John McLean Morris, M.D. and Robert E. Scully, M.D. Pp. 151. 75 Illustrations. 72s. 3d. St. Louis: The C. V. Mosby Company. 1958.

The author gives a very good account of this very complex subject and reviews all the recent literature. Although he gives his own opinion, the opinions of other writers are given in detail. A very full list of references are included and the text is supported by beautiful photographs. It can be recommended to specialists and the numerous photographs can be of great help to histologists,

but to the undergraduate and the general practitioner it would make a complex subject even more complex.

The introductory chapters are the best in the book. A detailed account of the normal physiology and histology of the ovary is given. It is well shown that all ovaries secrete androgens as well as oestrogen and progesterone and that any disturbance in this relationship can cause virilism. The Stein-Leventhal syndrome, which has come so much to the fore in latter years, is fully discussed.

According to the author morphology must remain, at least for the time being, the principal basis for the identification and classification of functioning ovarian tumors. Endocrine effect cannot be used as an absolute criterion, for similar effects can be ascribed to a variety of cell types. Likewise, as is true in other endocrine glands, absence of demonstrable hormonal change does not exclude the endocrine-cell origin of the tumor.

The author stresses the fact that all these tumors are malignant and should be treated by total hysterectomy and bilateral salpingo-oophorectomy. In some cases the uterus can be conserved but only for the purpose of follow-up with radium therapy. In the young woman who wishes to have children, conservative surgery may be attempted but the patient should be under constant observation thereafter.

R.W.A.N.

#### DISEASES OF THE COLON AND RECTUM

*Diseases of the Colon and Rectum.* Vol. I. January-February 1958. No. 1. Editor-in-Chief. Louis A. Buie, Sr., M.D. Pp. 80+16 Illustrations. Published every two months. Subscription including postage £5 per annum. Philadelphia and Montreal: J. B. Lippincott Company. British Representatives: London: Pitman Medical Publishing Co. Ltd. 1958.

These are the first two numbers of a new Journal which has been published in the United States of America. These days, when one is hard pressed to keep up with reading all the journals with which one tries to keep abreast, the advent of a newcomer may not always be greeted with an enthusiastic welcome. There are at least two journals published in the U.S.A., 'Gastro-enterology' and 'The American Journal of Digestive Diseases' which include many excellent articles on diseases of the colon and rectum. One may suppose that for specialists in the subject, such as members of the American Proctological Society, this specialized publication will be of great service, since it will enable the reader

to obtain a comprehensive knowledge of the advances in this field. The Journal is under the distinguished editorship of Dr. Louis A. Buie and the original articles in these two journals are of a high scientific standard. There is a feature of selected abstracts which promises to be very useful. In addition there is a review of the literature of diseases of the colon and rectum which is compiled from a wide range of journals and which is classified under various categories, so that the recent literature on a particular subject is readily available.

L.M.

#### TUMOURS OF THE LIVER

*Tumors of the Liver and Intrahepatic Bile Ducts.* By Hugh A. Edmondson, M.D. Pp. 216. 207 Figures. 6 Color Plates. \$2.25. Washington: Armed Forces Institute of Pathology. 1958.

*Tumors of the Esophagus.* By Arthur Purdy Stout, M.D. and Raffaele Lattes, M.D. Pp. 105. 58 Figures. 2 Colour Plates. \$1.00. Washington: Armed Forces Institute of Pathology. 1957.

The series of fascicles produced by the U.S. Armed Forces Institute of Pathology have gained universal recognition for the magnificence of their coloured illustrations, the clarity of their photomicrographs, the scholarly quality of their text and the range of their references. The latest additions are distinguished by the same virtues and hold a special interest for practitioners in South Africa where tumours of the liver and oesophagus occur with such an alarming and disproportionate frequency. Although primarily designed for pathologists, these monographs are invaluable to all physicians and surgeons who profess an interest in these organs. The authors have not set out to repeat time-worn conceptions, but have based their views and illustrations on their own experiences supplemented by the almost incomparable material made available to the Armed Forces Institute. Controversial points are dealt with clearly and usually illustrated with an abundance of plates in the belief that the visual picture is worth far more than pages of words.

These books are so skillfully planned that they may serve either as detailed works of reference or to provide a broad picture of the problems. It is refreshing to note how reasonably they are priced due, no doubt, to support by the American Cancer Society and others.

Like their companion volumes they can be unreservedly recommended.

A.J.W.

#### CORRESPONDENCE : BRIEWERUBRIEK

##### NEEDS FOR MEDICAL CARE

*To the Editor:* It is often useful to do the kind of book-keeping about services that Mr. Zwart<sup>1</sup> has attempted for Meadowlands and Baragwanath. But it may also be dangerous, especially if we allow ourselves to fall victim to fallaciously used statistics.

There is a fundamental fallacy in the way the material on attendances at Meadowlands and Baragwanath is presented. The writer assumes, without any qualification, that he is dealing with an ideal situation, in which the services provided meet all the demands of the community. Anyone working in this situation well knows that this is not so. The expressed demand is not synonymous with the needs of a community. Demand varies, amongst other things, with the provision of services—usually, the more effective provision there is, the more the service is used, i.e. it creates its own demand. Nor will all sections of a population make use of a service they may need. Many cultural and educational barriers are likely to prevent this. These 'unfelt needs' are ignored in Mr. Zwart's figures.

Mr. Zwart also seems to assume that there are no other agencies meeting the demand for medical care—such as private practitioners etc. Again, he implies that one community is exactly the same as another. From his very limited material at Meadowlands and Baragwanath alone, he asserts that he can predict the need for medical services not only in that area but for any 'urban Bantu community'. These are important weaknesses which affect the author's claim that he can predict needs for medical care. One must regard the claim as extravagant.

There are other weaknesses, perhaps of a less fundamental

nature, in the analysis itself. For example, a decline of self-referrals to Baragwanath is shown to be more or less parallel with the increase in patients referred from the polyclinic to Baragwanath. Mr. Zwart regards this as a casual effect. The decline may or may not be related to the opening of the polyclinic. No such assumption is justified without more detailed analysis of the patients themselves and more prolonged observation of the total situation, especially before the clinic opened. The period chosen—8 weeks of full operation and 13 weeks in all from the opening of the clinic—is too short to do more than suggest a trend.

By his neglect of references one must presume that Mr. Zwart believes that no one has preceded him in this field. From an extensive literature on medical care, I should like to draw attention to only two classical South African studies in neither of which the mistake is made of forgetting the people behind the statistics. These are the studies of Kark and Cassel at Pholela,<sup>2</sup> and of Kark and Steuart at Clairwood.<sup>3</sup>

M. Susser

Department of Social and Preventive Medicine  
Manchester University  
Clinical Sciences Building  
York Place  
Manchester 13  
England  
28 November 1958

1. Zwart, W. (1958): S. Afr. Med. J., 32, 1037.

2. Kark, S. L. and Cassel, J. (1952): *Ibid.*, 1, 101 and 132.

3. Kark, S. L. and Steuart, G. W. (1957): *Hlth Educ. J.*, 15, 131.

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Sug en Gaap

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Message from Dr. J. H. Struthers : Boodskap van dr. J. H. Struthers

Present Trends in the Management of Breast Cancer

A Modified Staining Technique for Trichomonas Vaginalis

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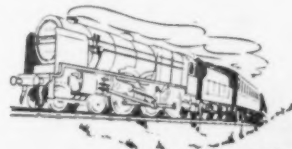
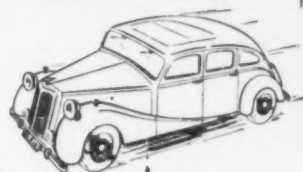
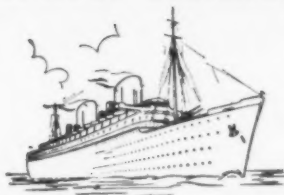


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Gelbman, F. and Epstein, N. B. (1949), *Canad. med. Assn. J.*, 60, 549.  
Hald, J. and Jacobsen, E. (1948), *Lancet*, ii, 1001.  
Hald, J., Jacobsen, E. and Larsen, V. (1948), *Acta pharmacol. et toxicol.* 4, 285.  
Jacobsen, E. (1950a), *Lancet*, i, 118.  
Jacobsen, E. (1950b), *Proc. Roy. Soc. Med.*, 43, 519.  
Jacobsen, E. E. and Martensen-Larsen, O. (1949), *J. Amer. med. Assn.*, 139, 918.  
Knutsen, B. (1949), *Tidsskr. Norsk Lægefor.*, 69, 436.

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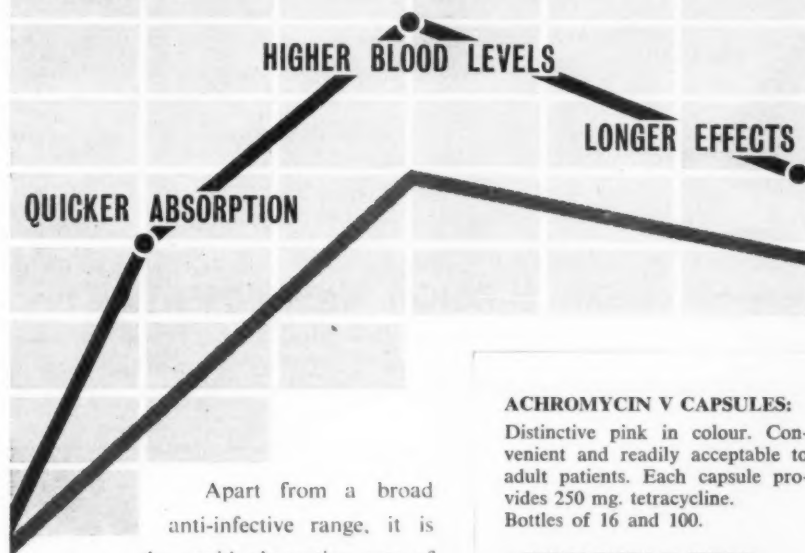
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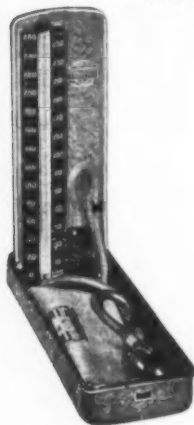
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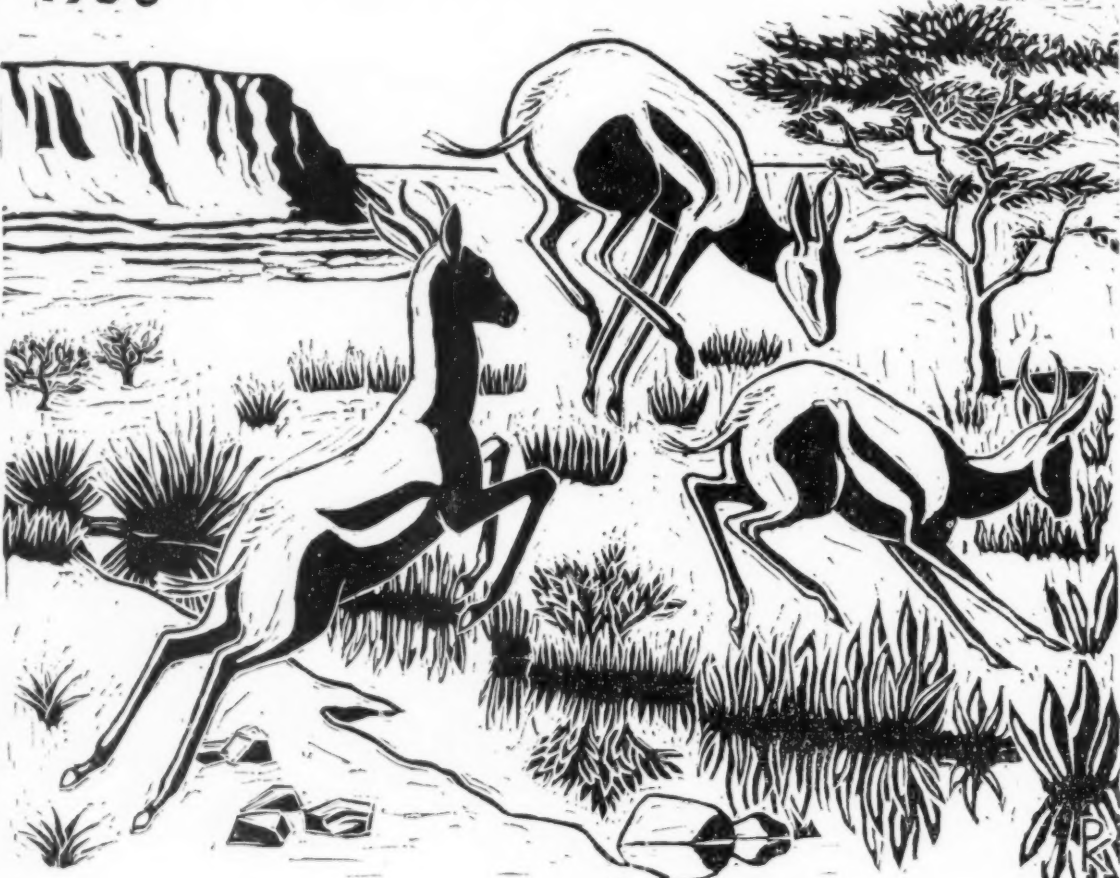


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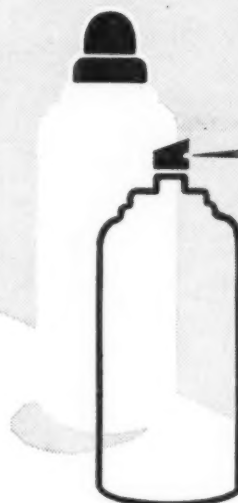
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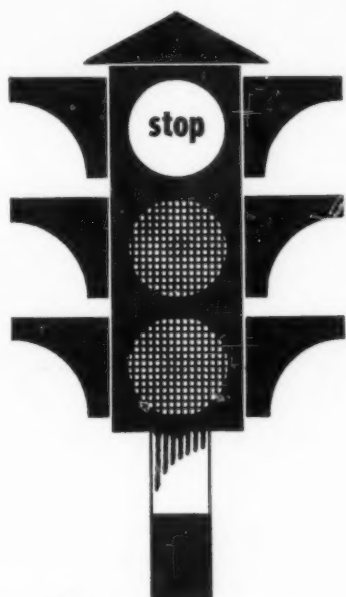
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Considerable delay in the publication of papers is often due to the fact that they are poorly prepared. Publication will be expedited if the following specifications are complied with:

1. All copy should be typewritten (double or preferably triple spaced) with wide margins.

2. Tables, references, graphs, illustrations and legends for illustrations should be clearly identified and prepared on separate sheets.

3. All photographs should be glossy prints unmounted, untrimmed and unmarked. Author's suggestions for trimming, etc., are most suitably indicated on a duplicate print or diagram.

4. In no circumstances should original X-ray films be forwarded. Glossy prints must be submitted.

5. Line drawings should be on white board, arranged to conserve vertical space. All lettering in diagrams and graphs should be indicated clearly in soft lead pencil, preferably on a duplicate specimen or diagram in rough. In no circumstances should lettering be inked in or typewritten on the figure or the graph. Illustrations should not exceed 12 inches  $\times$  18 inches in size.

6. Figure numbers should be marked clearly on the back of each illustration, and in every case the top of the illustration should be indicated.

7. A limited but reasonable amount of illustrative and tabular matter is allowed free. Additional material of this sort may be allowed at cost, at the discretion of the Editor.

8. All references to the literature should be inserted in the text as a superior number and listed at the end of the article in numerical order.

9. References must conform to the following convention (journal titles being abbreviated according to the *World List of Scientific Periodicals*):

White, J. and Brown, A. B. (1946): *Arch. Clin. Med.*, **123**, 167.  
Books should be cited as follows:

Smith, J. (1946): *An Introduction to Medicine*, 2nd. ed., p. 174.  
Cape Town: John Black Ltd.

10. All numerals to be printed as figures (i.e. *not* spelt out). All numerals *always* to be spelt out in full at the beginning of a sentence.

11. Cubic centimetre as c.c.; Cubic millimetre as c.mm.; 7.11.46 as 7 November 1946; 2nd as second; 10/6 as 10s. 6d.; Per cent. as %; 1" as 1 inch; B.P. 140/80 as Blood pressure, 140/80 mm. Hg.

12. Each paper should conclude with a summary (of about 200 words) intelligible apart from reference to the main text of the article.

13a. Galley proofs will be forwarded to the author in good time before publication date.

13b. Corrections, other than typographical errors, will be charged to the author. It is therefore most important that the MS. be submitted in its final form.

14. *Reprints*: An order blank for reprints, together with a price list, will be sent to the author as soon as his article reaches page-proof stage.

15. All manuscripts and correspondence should be addressed to: The Editor, *The South African Medical Journal*, P.O. Box 643 Cape Town.

Onthou Asseblief



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## Liefdadigheidsfonds

Bydraes

sal met dank ontvang word

Stuur dit aan

Die Erepenningmeester

Mediese Vereniging van Suid-Afrika

Posbus 643

Kaapstad

## Provincial Administration of the Cape of Good Hope

WOODSTOCK HOSPITAL : MOUNTAIN ROAD,  
WOODSTOCK

VACANCY : MEDICAL OFFICER GRADE III

Applications are invited from Registered Medical Practitioners for appointment to the post of Medical Officer, Grade III at the abovementioned Institution with remuneration as follows:

Scale: £1,380  $\times$  60—1,560.

No Experience: £1,380.

1 Years' Experience: £1,440.

2 Years' Experience: and above £1,740.

Applications on the prescribed form Staff 23 to be forwarded to the Medical Superintendent, Central Office, Mountain Road, Woodstock, to reach his office not later than Noon on Saturday 10 January 1959. RW 3951

## Provinsiale Administrasie van die Kaap die Goeie Hoop

WOODSTOCK-HOSPITAAL : MOUNTAINWEG,  
WOODSTOCK

VAKATURE : MEDIESE BEAMPTTE GRAAD III

Aansoeke word ingewag van Geregistreerde Mediese Geneeshere vir aanstelling in die pos van Mediese Beampte Graad III by die bogenoemde inrigting, met besoldiging as volg:

Skaal: £1,380  $\times$  60—1,560.

Geen ondervinding: £1,380.

1 Jaar ondervinding: £1,440.

2 en meer jaar ondervinding: £1,740.

Aansoeke op die voorgeskrewe vorm Staf 23 moet gerig word aan die Mediese Superintendent, Sentrale Kantoor, Mountainweg, Woodstock, om sy kantoor nie later as 12-uur middag, Saterdag 10 Januarie 1959, te bereik nie. RW 3951

## The Medical Association of South Africa Die Mediese Vereniging van Suid-Afrika

AGENTSAP-AFDELING : AGENCY DEPARTMENT

### JOHANNESBURG

Medical House, 5 Esselen Street. Telephone: 44-0817

Mediese Huis, Esselenstraat 5. Telefoon: 44-0817

Tel. Ad.: 'Serpent'

### LOCUMS AVAILABLE

#### PLAASVERVANGINGS BESKIKBAAR

(1476) RANDSE HOSPITAALDORP. Vennootskappraktijk. Plaasvervanger benodig vir Januarie. Verkieslik iemand met eie kar. Losies en inwoning sal verskaf word en 'n baie goeie salaris word aangebied.

(1475) JOHANNESBURG. Locum as from 2 till 11 January, both dates inclusive. Excellent terms.

(1474) VRYSTAAT. Plaasvervanger benodig vanaf 3 tot 17 Januarie. Kar kan verskaf word en die salaris is uitstekend.

(1473) EAST RAND. Locum is required for April, May and June; partnership practice. Good salary and allowances. Must be bilingual.

(1470) EASTERN TRANSVAAL. Locum as from 13 January for three weeks. Easy practice, 80% non-European, with hardly any night work. Car could be supplied.

(1469) JOHANNESBURG. Locum required for one month as from mid-January or for February. Easy practice.

(1468) O.F.S. HOLIDAY RESORT. Locum required for first three weeks in January. Partnership practice.

(1463) SWAZILAND. Locum required for three weeks—dates to be arranged. Salary 30 guineas per week, and £10 for private practice, in addition. Transport provided. First class return fare or equivalent thereof. Free board and lodging for locum and wife. Will also suit an elderly person.

(1462) EASTERN TRANSVAAL. Mine appointment. Locum as from 15 December for one month. Very little night work. All sports facilities.

(1458) MINE LOCUM. Locum to start immediately for one month. Salary £120 per month, plus cost of living allowance, locomotion allowance and board and lodging.

(1453) EASTERN TRANSVAAL. Locum required to start as soon as possible for three weeks. Good salary, plus car and driver, supplied.

(1440) NEAR JOHANNESBURG. Locum required for partnership practice, as from 8 January till 8 February. Car could be provided. Salary to be mutually arranged.

(1431) JOHANNESBURG. Locum is required for three weeks during January—dates to be arranged with locum. Preferably someone with own car.

(1419) JOHANNESBURG. Partnership practice. Locum required as from 29 December for three weeks. Salary £5 5s. 0d. per day, plus free petrol and oil.

(1416) PRETORIA. Plaasvervanger benodig vir Maart. Verkieslik iemand om eienaar se huis te bewoon gedurende sy afwesigheid. Goeie salaris.

(1410) MINE LOCUM. Locum is required for a period of six months up to one year. Preferably a single man.

(1477) JOHANNESBURG. Locum required as from 21 January till 18 February. Terms to be arranged.

### LOCUM WANTED

An experienced doctor is available for a JOHANNESBURG locum during January and February. Accommodation must be provided for February.

### PRAKTYK TE KOOP

(Pr-S445) PRETORIA. OU-GEVESTIGDE PRAKTYK, MET OMTRENT GEEN NAGWERK EN GEEN CHIRURGIE, VIR ONMIDDELIKE VERKOPING TEEN 'N PREMIE VAN £1.000 OP MAKLIKE TERME OF GOEIE KORTING VIR KONTANT. JAARLIKSE OMSET VAN £4.000. HIERDIE SUIWER PRIVAATPRAKTYK IS OOK UITERS GESKIK VIR 'N JONG MAN.

### KAAPSTAD : CAPE TOWN

Posbus 643, Telefoon 2-6177. Tel. Ad.: 'Medical'

As u op soek is na 'n PRAKTYK OF VENNOOTSKAP in die KAAP, NATAL, O.V.S., TRANSVAAL, S.W.A. OF RHODESIE stel ons in kennis.

Ons kan u 'n wye keuse aanbied—STEDELIK OF PLATTE-LAND—en kapitaal is dikwels nie nodig nie.

As u deur die Agentskap koop, betaal u geen kommissie nie.

### PLAASVERVANGERS EN ASSISTENTE WORD DRINGEND BENODIG

(3048) LOCUM REQUIRED URGENTLY FOR NATAL COUNTRY PRACTICE FOR JANUARY. Dates to be arranged. Salary £5 10s. 0d. per day plus £25 per month travelling allowance, plus board and lodging. No night work. Pleasant surroundings.

## Provincial Administration of the Cape of Good Hope

### CONRADIE HOSPITAL, PINELANDS, CAPE

1. Applications are invited from registered Medical Officers for appointment to the following posts:

#### MEDICAL OFFICER GRADE III (ANAESTHETIST) EMOLUMENTS

No experience—£1,380 per annum.

1 year's experience—£1,440 per annum.

2 year's experience—£1,740 per annum (fixed).

The post is recognized by the South African Medical and Dental Council for the purpose of the rules for the registration of Specialists.

2. In addition to the salary scale indicated a vacation savings bonus is payable, subject to certain conditions.

3. The conditions of service are prescribed in terms of Hospital Service Ordinance No. 23 of 1958, and the regulations framed thereunder.

4. Successful candidates for permanent appointment, if not already in the Hospital Service, will be required to submit satisfactory birth, health, professional and registration certificates.

5. Applications must be made on the prescribed form (Staff 23), which is obtainable from the Director of Hospital Services, P.O. Box 2060, Cape Town, or from the Medical Superintendent of any Provincial Hospital in the Cape Province.

6. Applications must be addressed to the Medical Superintendent and must reach him not later than 10 January 1959.

A 248462

### NATALSE PROVINSIALE ADMINISTRASIE EN UNIVERSITEIT VAN NATAL GESAMENTLIK

Aansoek om ondervermelde tweeledige betrekking aan die Instituut vir Gesins- en Gemeenskapsgesondheid (Natalse Provinsiale Administrasie) en die Departement van Maatskaplike, Voorkomende en Gesinsgeneeskunde (Mediese Fakulteit, Universiteit van Natal) word ingewag.

Senior lektor/Gesinsgeneesheer.

Die salarisskaal verbonde aan die betrekking is £1,200 × 50—1,400 × 50—1,600 per jaar en die minimum aanvangskers is £1,400.

Applikante moet by die Suid-Afrikaanse Mediese en Tandheelkundige Raad as Mediese Praktisyn geregistreer wees.

Aansoek moet ingedien word op voorgeskrewe vorms, moet vergesel gaan van besonderhede van die applikant se curriculum vitae en moet die name verstrek van minstens twee persone by wie oor die applikant navraag gedoen kan word.

Die sluitingsdatum vir aansoek is 31 Desember 1958 en aansoek moet gerig word aan die Direkteur van Provinsiale Hospitale, Posbus 20, Pietermaritzburg, van wie nader besonderhede en die nodige aansoekvorms verkrygbaar is.

AD 10880

### FOR SALE

DOCTOR'S RESIDENCE ON MAIN ROAD, SOUTHERN SUBURBS. IMMEDIATE OCCUPATION. WITH FITTED SURGERY AND WAITING ROOM. NO OPPOSITION. REPLY A.N.K., P.O. BOX 643, CAPE TOWN.

## BELANGRIKE KENNISGEWING

Die Federale Raad verlang dat alle geneeshere, wat aansoek wil doen om kontrakpraktyk-aanstelling wat in hierdie kolomme geadverteer word, eers die Eresekretaris van dié Tak van die Mediese Vereniging van Suid-Afrika, binne wie se gebied die aanstelling val, moet raadpleeg sodat hulle kan weet of die voorwaardes van die aanstelling bevredigend is of nie. Kontrakpraktyk-aanstellings sluit in alle aanstellings deur Mediese Bystandsverenigings, Siekefondse en Fabriëke. Die adresse van die Eresekretaris van Takke is soos volg:

Grens: Dr. P. P. Wium, Posbus 405, Oos-Londen.  
Oos-Kaapland: Dr. L. R. L. Solomon, Hoogstraat 133, Grahamstad.

Midde-Kaapland: Dr. P. Jabkowitz, Glenairlie 1, Kaapweg 69, Port Elizabeth.

Wes-Kaapland: Dr. A. Swanepoel, Posbus 643, Kaapstad.

Oos-Rand: Dr. W. M. Bezuidenhout, Posbus 536, Benoni.

Griekwaland-Wes: Dr. U. F. McKenzie, Chapelstraat 19, Kimberley.

Natalse Kus: Dr. D. A. Edington, Mediese Sentrum 53, Fieldstraat, Durban.

Natalse Binneland: Dr. H. A. Kalley, Posbus 285, Pietermaritzburg.

Noord-Transvaal: Dr. E. Fasser, Administrasie-Gebou 28, Algemene Hospitaal, Pretoria.

Oranje-Vrystaat en Basoetoland: Dr. C. V. van der Merwe, Posbus 834, Bloemfontein.

Suid-Transvaal: Dr. W. A. Miller, Posbus 10102, Johannesburg.

Suidwes-Afrika: Dr. H. H. J. Schmidt, Posbus 1217, Windhoek.

Transkei: Dr. J. H. Hofmeyr, Posbus 318, Umtata.

Vaalrivier: Dr. C. G. Albertyn, Posbus 742, Vereeniging.

## SWISS SURGEON

Chief surgeon of an important medical service, with long experience and extraordinary good references. Speaks French, English and German. Would like to establish himself in South Africa. Wishes to get in touch with colleagues in private or hospital practice about possibilities of professional collaboration. Write A.M.K., P.O. Box 643, Cape Town.

## Provincial Administration of the Cape of Good Hope

### UNIVERSITY OF CAPE TOWN : JOINT MEDICAL STAFF FOR GROOTE SCHUUR HOSPITAL : OBSERVATORY VACANCY

Applications are invited from registered Medical Practitioners for appointment to the following post:

#### DEPARTMENT OF NEUROLOGY AND PSYCHIATRY

Medical Practitioner, Grade E.

Remuneration: £2,250 (fixed).

In addition to the salary scale indicated, a vacation savings bonus is payable, subject to certain conditions.

The conditions of service are prescribed in terms of the Hospital Service Ordinance No. 23 of 1958, and the regulations framed thereunder, as well as the agreement entered into between the Provincial Administration and the University of Cape Town.

The Joint Medical Staff is required to serve jointly the Provincial Administration and the University of Cape Town.

Successful candidates for permanent appointment if not already in the Hospital Service, will be required to submit satisfactory birth, health, professional and registration certificates.

Candidates are requested to furnish particulars in regard to the following:

- Academic achievements (degrees and diplomas held and the standard of achievement in professional examinations, scholarships and special awards).
- Professional experience (not only the name of the employer but also that of the institution in which the candidate worked and the type of work undertaken).
- Names of three persons from whom references may be obtained (one of these should preferably be someone occupied in the same branch of medicine as the candidate).

Applications must be made in duplicate on the prescribed form, Staff 23, which is obtainable from the Director of Hospital Services, P.O. Box 2060, Cape Town, or from the Medical Superintendent of any provincial hospital.

Applications must be addressed to the Medical Superintendent and must reach him not later than 31 January 1959.

P 60400

## Provinsiale Administrasie van die Kaap die Goeie Hoop

### CONRADIE-HOSPITAAL, PINELANDS, KAAP VAKATURE

1. Aansoeke word ingewag van geregistreerde Mediese Beampptes vir aanstelling in die volgende pos:

#### MEDIESE BEAMPTTE, GRAAD III : NARKOTISEUR BESOLDIGING

Geen ondervinding—£1,380 per jaar.

1 Jaar ondervinding—£1,440 per jaar.

2 Jaar ondervinding—£1,740 per jaar (vas).

Die pos word vir die doel van die reëls insake die registrasie van spesialiste deur die Suid-Afrikaanse Genees- en Tandheelkundige Raad erken.

2. Benewens die salarisskaal soos aangedui, is 'n vakansie-besparingsbonus, onderhewig aan sekere voorwaardes, betaalbaar.

3. Die diensvoorwaardes word voorgeskryf ingevolge die Ordonnansie op Hospitaaldiens nr. 23 van 1958 en die regulasies wat daarkragtens opgestel is.

4. Suksesvolle kandidaat vir permanente aanstelling, indien nie reeds werksaam in die Hospitaaldiens nie, moet bevredigende geboorte-, gesondheids-, professionele en registrasiesertifikaat indien.

5. Aansoeke moet gedoen word op die voorgeskrewe vorm (Staf 23) wat verkrygbaar is by die Direkteur van Hospitaaldiens, Posbus 2060, Kaapstad, of by die Mediese Superintendent van enige provinsiale hospitaal in die Kaapprovinsie.

6. Aansoeke moet aan die Mediese Superintendent gerig word en moet hom nie later as 10 Januarie 1959, bereik nie.

A 248462

## Provincial Administration of the Cape of Good Hope

### UNIVERSITY OF STELLENBOSCH : JOINT MEDICAL STAFF FOR KARL BREMER HOSPITAL, BELLVILLE VACANCIES

Applications are invited from registered Medical Practitioners for appointment to the following posts:

#### DEPARTMENT OF PATHOLOGY

Medical Practitioner, Grade C.

#### DEPARTMENT OF CASUALTY

Medical Practitioner, Grade A (2 posts).

#### REMUNERATION

Grade C £1,380 (fixed).

Grade A £684, 780, 876 per annum.

In addition to the salary scale indicated, a vacation savings bonus is payable, subject to certain conditions.

The conditions of service are prescribed in terms of the Hospital Service Ordinance No. 23 of 1958, and the regulations framed thereunder, as well as the agreement entered into between the Provincial Administration and the University of Stellenbosch.

The Joint Medical Staff is required to serve jointly the Provincial Administration and the University of Stellenbosch.

Successful candidates for permanent appointment if not already in the Hospital Service, will be required to submit satisfactory birth, health, professional and registration certificates.

Candidates are requested to furnish particulars in regard to the following:

- Academic achievements (degrees and diplomas held and the standard of achievement in professional examinations, scholarships and special awards).
- Professional experience (not only the name of the employer but also that of the institution in which the candidate worked and the type of work undertaken).
- Names of three persons from whom references may be obtained (one of these should preferably be someone occupied in the same branch of medicine as the candidate).

Applications must be made in duplicate on the prescribed form, Staff 23, which is obtainable from the Director of Hospital Services, P.O. Box 2060, Cape Town, or from the Medical Superintendent of any provincial hospital.

Applications for the Grade C post must be addressed to the Director of Hospital Services, P.O. Box 2060, Cape Town and applications for the Grade A posts must be addressed to the Medical Superintendent and must reach them not later than 31 January 1959.

N 416101

### VACANCIES : MARION AND GOUGH ISLANDS : MEDICAL OFFICERS

Applications are invited for appointment in a temporary capacity for a period of approximately one year, commencing during March/April 1959, in the following vacancies:

- Temporary Medical Officer—recently qualified medical practitioners after completion of the internship .. .. *Salary and allowances* ± £130 per month
- Temporary Medical Officer—medical practitioners with at least two years experience after completion of the internship .. .. ± £160 per month.

There is one vacancy on each of the abovementioned islands.

Accommodation, food and protective clothing are supplied free by the Department of Transport.

Application forms and further particulars are obtainable from the Secretary for Transport, Pretoria. (Telephone 3-3081, ext. 37).

Applications must reach the abovementioned not later than 14 January 1959.

16700

### VAKATURES : MARION- EN GOUGHEILANDE : MEDIESE BEAMPTES

Aansoek word ingewag vir aanstelling in 'n tydelike hoedanigheid vir 'n tydperk van ongeveer een jaar vanaf Maart/April 1959 in die volgende vakatures:

*Salaris en toelaes*

- Tydelike Mediese Beampte—pas gekwalifiseerde medici na voltooiing van die huisdokterskap .. .. ± £130 per maand.
- Tydelike Mediese Beampte—medici wat ten minste twee jaar ondervinding opgedoen het na voltooiing van die huisdokterskap .. .. ± £160 per maand.

Daar bestaan een vakature op elk van bogenelde eilande. Huisvesting, voedsel en beskermende klerasie word kosteloos deur die Departement van Vervoer voorsien.

Aansoekvorms en verdere besonderhede is verkrygbaar van die Sekretaris van Vervoer, Pretoria (Telefoon 3-3081, uitbreiding 37).

Aansoek moet bogenoemde nie later as 14 Januarie 1959 bereik. 16700

### ROOMS AVAILABLE

Second floor Lister Buildings, Johannesburg. Immediate occupation. Phone 22-4522.

### ASSISTANT WITH VIEW TO PARTNERSHIP

Assistant with view to partnership required in mixed general practice in Northern Rhodesia. Adequately equipped rooms and well organized practice. One large appointment. Adequate hospital facilities and all branches of medicine handled including anaesthetics and surgery. Experienced man preferred but newly qualified man considered. S.D.A. Church member preferred but not essential. Commencing salary £150 to £200. Write: A.M.Q., P.O. Box 643, Cape Town.

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#### ROTATING INTERNSHIPS

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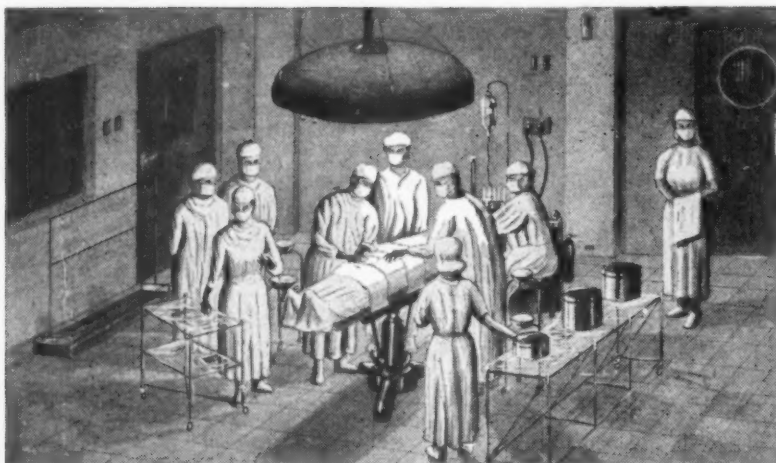
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#### **MEDIESE VERSEKERINGSAGENTSAP**

Alle vorms van versekering word met maatskappye van naam en aansien gereël. Stel ons van u behoeftes in kennis deur die onderstaande koepon te voltooi en ons sal die nodige reëlings tref. Mediese Vereniging van Suid-Afrika — Mediese Versekeringsagentskap



**Mediese Vereniging  
van Suid-Afrika**

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VANDAG!**

#### **DIE MEDIESE VERSEKERINGSAGENTSAP (M.V.S.A.)**

Posbus 643

Kaapstad

Telefoon 2-6177

Ek stel belang in die versekering van my.....

Geliewe my van inligting te voorsien of reëlings te tref dat ek besoek word

NAAM (Drukletters).....

ADRES.....

Voltooi hierdie koepon en pos dit aan die Mediese Vereniging van Suid-Afrika — Mediese Versekeringsagentskap

Office of the Editor:  
**South African Medical  
 Journal**



Kantoor van die Redakteur:  
**Suid-Afrikaanse Tydskrif  
 vir Geneeskunde**

27 Desember 1958

*Geagte Dokter,*

*Ons weet almal van die groot vordering insake terapeutiese middels en toestelle  
 oor die laaste jare, en ons weet ook dat hierdie vordering te danke is aan die noulettende  
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*Die jongste van hierdie produkte word op die advertensieblaaie in hierdie  
 Tydskrif beskrywe, en ek wil hulle graag onder u aandag bring.*

*Die Redakteur*

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The modern method of treatment in otitis externa, chronic otitis media, and infected mastoid cavities, is

**'Otosporin' brand Drops.**

'Otosporin' is an aqueous suspension containing both neomycin (5 mgm. per c.c.) and polymyxin B sulphate (10,000 units per c.c.) which are together effective against practically all the bacteria found in ear infections.

They are unlikely to induce bacterial resistance or skin sensitisation, and neither of them gives rise to cross-resistance or cross-sensitisation to penicillin and other antibiotics. Their effectiveness is visibly enhanced by the hydrocortisone (5 mgm. per c.c.) in 'Otosporin'; this, by reducing inflammation, not only relieves pain, but provides greater access for the antibiotics

**'OTOSPORIN' drops**  
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